



PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

SHEILA C. HOLMAN  
*Director*

DRAFT – February 16, 2016

Mr. Michael Klauke  
Facility Superintendent  
Cargill, Inc.  
1754 River Road  
Fayetteville, North Carolina 28312

Dear Mr. Klauke:

SUBJECT: Air Quality Permit No. 03903T41  
Facility ID: 2600016  
Cargill, Inc.  
Fayetteville, Cumberland County, North Carolina  
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for renewal of a Title V permit pursuant to 15A NCAC 2Q .0504 received on September 21, 2012; we are forwarding herewith Air Quality Permit No. 03903T41 to Cargill, Inc. located in Fayetteville, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon

receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of GS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

Increment tracking does not apply to this renewal. Although Cumberland County's minor source baseline for NO<sub>x</sub>, PM<sub>10</sub> and SO<sub>2</sub> has been triggered; there are no emissions increases or decreases associated with the renewal.

The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 2Q .0504 for the air emission sources added and or modified as part of significant modification (Application No. 2600016.14F) on or before 12 months after commencing operation.

This Air Quality Permit shall be effective from XXXX, 2016 until August 31, 2018\*\*, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact Judy Lee at (919) 707-8729.

Sincerely yours,

William D. Willets, P. E., Chief, Permitting Section  
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4  
Fayetteville Regional Office  
Connie Horne (Cover Letter ONLY)  
Central Files

**Attachment**  
**Insignificant Activities**

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>
IES-69-1	Soybean storage tank
IES-69-2	Soybean storage tank
IES-69-3	Soybean storage tank
IES-69-4	Soybean storage tank
IES-69-5	Soybean storage tank
IES-69-6	Soybean storage tank
IES-69-7	Soybean storage tank
IES-69-8	Soybean storage tank
IES-69-9	Soybean storage tank
IES-69-10	Soybean storage tank
IES-69-11	Soybean storage tank
IES-68	Bean conditioning
IES-70	Process condensers
IES-72	Diesel fuel oil storage tank (150 gallons capacity)
IES-73	Gasoline storage tank (500 gallons capacity)
IES-75	Portable 300 gallon diesel fuel storage tank
IES-76-1	Sulfuric acid tank (10,000 gallon capacity)
IES-76-2	Sulfuric acid tank (15,000 gallon capacity)
IES-77	Caustic storage tank (7,000 gallons capacity)
IES-78	Phosphoric acid storage tank (6,000 gallons capacity)
IES-79	Waste treatment polymer storage tank (500 gallons capacity)

## Attachment Table of Changes

The following changes were made to the Cargill, Inc. Air Quality Permit No. 03903T40:

Old Page No. [Air Quality Permit No. 03903T40]	New Page No. [Air Quality Permit No. 03903T41]	Condition No.	Changes
Cover Letter, Attachments and Pages 1 through 54	Cover Letter, Attachments and Pages 1 through 54	Entire permit, where applicable	Modified to reflect current permit number, issue and effective date, and associated application information. Updated language with current shell guidance.
Attachment		Table of Changes	Updated per this permit renewal.
		Insignificant Activities	No changes associated with this permit modification except MACT notations where necessary.
3 – 5	3 – 5	Section 1 – Equipment Table	
21 – 22	21 – 28	Section 2.1-H.	Updated 112(j) MACT & added MACT 5D for Boilers (ES-41 & ES-80)
45 – 54	51 – 60	Section 3	Updated with most recent General Conditions ( <b>Version 4.0 12/17/15</b> ) & List of Acronyms

## Attachment

The following table may be used for the recordkeeping described in condition 2.3-A.1.e of this permit.

**Table 1 “Extraction Solvent Loss Recordkeeping Table”**

Date	Oilseeds Processed (tons)		Solvent Loss (gallons)		Malfunction Period Solvent Loss (gallons)		Adjusted Solvent Loss (gallons)		Adjusted Solvent Loss Ratio (gallons/ton)	
	Month	12-Month	Month	12-Month	Month	12-Month	Month	12-Month	Month	12-Month

Notes: Date refers to the Permittee’s operating month

The data for the oilseeds processed is on an “as received” basis (i.e. before any processing of the oilseeds)

The data in the columns labeled “Month” are the values for the Permittee’s operating month

The data in the columns labeled “12-Month” are the rolling average values for the 12 most recent operating months

The Permittee may adjust solvent loss for malfunctions only if:

- (1) the malfunction results in a shutdown of the solvent extraction system; and
- (2) cumulative solvent losses during malfunction periods do not exceed 4,000 gallons in a 12-operating month rolling period



State of North Carolina  
Department of Environmental Quality  
Division of Air Quality

## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
03903T41	03903T40	XXXX, 2016	August 31, 2018**

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

**Permittee:** **Cargill, Incorporated**

**Facility ID:** **06/026/00016**

**Facility Site Location:** **1754 River Road**  
**City, County, State, Zip:** **Fayetteville, Cumberland County, North Carolina 28312**

**Mailing Address:** **1754 River Road**  
**City, State, Zip:** **Fayetteville, North Carolina 28312**  
**Application Number:** **2600016.12B**

**Primary SIC Code:** **2075**  
**Division of Air Quality,** **Fayetteville Regional Office**  
**Regional Office Address:** **225 Green Street - Suite 714, Systel Building**  
**Fayetteville, North Carolina 28301-5043**

Permit issued this the XX<sup>th</sup> day of XXXX, 2016.

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William D. Willets, P. E., Chief, Permitting Section, Division of Air Quality, NCDEQ  
By Authority of the Environmental Management Commission

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## SECTION 1 - PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
<b>Solvent Extraction for Vegetable Oil Production<sup>1</sup></b>			
<b>Raw Soybean Storage and Handling (Whole beans)</b>			
ES1 <b>MACT</b> <b>GGGG</b>	Rail unloading system consisting of elevators, belts, and drag conveyors (3,893 bushels per hour or 116.8 tons soybeans per hour maximum design capacity)	1C	bagfilter (1,155 square feet of filter area)
ES2 <b>MACT</b> <b>GGGG</b>	Truck unloading system consisting of one dump pit with a roof and a three sided enclosure (18,500 bushels per hour or 555 tons soybeans per hour maximum design capacity)	2C	bagfilter (1,155 square feet of filter area)
ES4 <b>MACT</b> <b>GGGG CAM</b>	Bean cleaning operation consisting of a shaker, shaker aspiration, trash grinders and conveyors (5,500 bushels per hour or 165 tons soybeans per hour maximum design capacity)	BF106 and C106	bagfilter (2,413 square feet of filter area) in series with simple cyclone (84 inches in diameter)
ES82 <b>MACT</b> <b>GGGG NSPS</b>	Direct-fired pre-cleaned soybean dryer (45 million Btu per hour heat input; 18,000 bushels soybeans per hour maximum design capacity or 4,730,400 tons per year)	N/A	N/A
ES51, ES52, ES53, and ES54 <b>MACT</b> <b>GGGG</b>	Soybean steel tank storage silos (1,000,000 bushels capacity each; 900 tons bin loading per hour each Silo) <sup>2</sup>	BF32, BF33, BF34 and BF35	four bagfilters (412 square feet of filter area each) [Bin Vent Bagfilters]
<b>Raw Soybean Processing</b>			
ES33 <b>MACT</b> <b>GGGG</b>	Scale for weighing soybean throughput (4,446 bushels per hour or 133.38 tons soybeans per hour maximum design capacity)	1C	bagfilter (1,155 square feet of filter area)
ES39 <b>MACT</b> <b>GGGG</b>	Whole bean storage bin, duo aspirators, and some of the bean conveying equipment (4,446 bushels per hour or 133.38 tons soybeans per hour maximum design capacity)	BF65 and CF12B	bagfilter (6,738 square feet of filter area) in series with one simple cyclone (108 inches in diameter)
ES5 <b>MACT</b> <b>GGGG CAM</b>	Cracking process consisting of cracking roll mills, and some of the bean conveying equipment (4,583 bushels per hour or 137.5 tons soybeans per hour maximum design capacity)	BF65	bagfilter (6,738 square feet of filter area)
ES65 <b>MACT</b> <b>GGGG CAM</b>	Primary dehulling process (4,446 bushels per hour or 133.38 tons soybeans per hour maximum design capacity)	BF65, C65D and C65E	bagfilter (6,738 square feet of filter area) installed on the exhausts from two simple cyclones in parallel (114 inches in diameter each)

<sup>1</sup> Process rates were taken from Cargill's Initial Title V Permit Review (Permit No. 03903T22) or DENR Application Forms submitted with this Application request (2600016.14F)

<sup>2</sup> Per DAQ memo dated 2/96 for Grain & Feed Mills – (EF = 0.05 lb/ton bin loading)



<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
ES83 <b>MACT</b> <b>GGGG</b>	Vertical seed conditioner - combination heater and dryer (4,853 bushels per hour or 137.50 tons soybeans per hour maximum design capacity)	CY83	high efficiency cyclone (33 inches in diameter)
ES12 <b>MACT</b> <b>GGGG CAM</b>	Secondary dehulling process (4,813 bushels per hour or 144.39 tons soybeans per hour maximum design capacity)	BF41, C12A and C12C	bagfilter (2,240 square feet of filter area) [Pneumafil] in series with two simple cyclone in parallel (84 and 108 inches in diameter, respectively)
ES6 <b>MACT</b> <b>GGGG</b> <b>CAM</b>	Soybean flaker process (4,446 bushels per hour or 133.38 tons soybeans per hour maximum design capacity)	6C	cyclone (120 inches in diameter)
ES30 <b>MACT</b> <b>GGGG</b>	Screw conveyor (sized to 110,000 bushels per day or 1,204,500 tons soybeans per year maximum design capacity) transports soybean meal “flakes” to the oil extraction process (ES31A)	N/A	N/A
<b>Flakes to Solvent Extraction and Oil Desolventizing</b>			
ES31A <b>MACT</b> <b>GGGG</b>	Soybean oil/Hexane solvent extraction process (4,583.33 bushels per hour; 160 pounds hexane per hour maximum design capacity or 1,204,499 tons of soybeans per year)	CD31	packed column mineral oil absorber - ceramic saddle (6.5 gallons per minute mineral oil injection rate)
ES31B <b>MACT</b> <b>GGGG</b>	Desolventizer-toaster (maximum capacity of 1,204,491 tons per year) receives the soybean “meal” from the extractor (ES31A) then sends it to the meal dryer and cooler	CD31	packed column mineral oil absorber - ceramic saddle (6.5 gallons per minute mineral oil injection rate)
ES29A and ES29B <b>MACT</b> <b>GGGG</b>	Two underground hexane storage tanks (25,000 gallon capacity each) hexane is exhausted through the final vent of the extraction process (CD-31)	CD31	packed column mineral oil absorber - ceramic saddle (6.5 gallons per minute mineral oil injection rate)
ES32A and ES32B <b>MACT</b> <b>GGGG</b>	Floor sweep fans No. 1 and No. 2 located in the extraction building (fugitives)	N/A	N/A
<b>Meal Drying, Cooling, Hull Handling, Storage and Loadout</b>			
ES15 <b>MACT</b> <b>GGGG</b>	Steam heated soybean meal dryer and cooler (115.50 tons soybean meal per hour maximum design capacity)	CY15A, CY15B, CY15C and CY15D	four simple cyclones in parallel (80 inches in diameter each)
ES11 <b>MACT</b> <b>GGGG CAM</b>	Meal grinding operation consisting of grinding, sifting, and conveying process (4,446 bushels per hour or 133.4 tons per hour maximum design capacity)	BF9	bagfilter (3,910 square feet of filter area)
ES62, ES63 & ES64 <b>MACT</b> <b>GGGG</b>	Three meal storage tanks (two 1,000 ton and one 3,000 ton capacity, respectively; 35 tons per hour unloading rate)	BF232	bagfilter (3,590 square feet of filter area)

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
ES316 <b>MACT GGGG</b>	Meal leg/hull conveyor (105 tons per hour maximum capacity)	BF232	bagfilter (3,590 square feet of filter area)
ES3A <b>MACT GGGG</b>	Meal and hull loading rail station (400 tons per hour maximum design capacity)	BF72	bagfilter (1,155 square feet of filter area)
ES3B <b>MACT GGGG</b>	Meal and hull loading truck station (400 tons per hour maximum design capacity)	BF232	bagfilter (3,590 square feet of filter area)
ES27 and ES61 <b>MACT GGGG</b>	Hull Storage Tanks 60 and 61 (10 and 60 tons per hour filling rate, respectively)	BF72	bagfilter (1,155 square feet of filter area)
ES18A <b>MACT GGGG</b>	Hull grinding operation feed by primary and secondary dehulling operations (105 tons per hour maximum design capacity) which sends ground hulls to hull storage tanks 60 & 61	BF65, CY9 and CY10	bagfilter (1,155 square feet of filter area) installed on the exhaust from two simple cyclones in parallel (60 inches in diameter each)
<b>Oil Refinery (includes both Fayetteville and Non-Fayetteville Crude Oil)</b>			
ES34	<b>Oil refinery</b> consisting of a refinery building, a deodorizer building, storage tanks, a truck loading area and a refinery sump receives the oil from the extraction process (65.6 tons per year hexane on-site and 24.0 tons per year hexane received off-site)	N/A	N/A
ES25	Fine clay receiving operation consisting of clay truck unloading area and clay receiving tank (maximum fill rate 10 tons per hour and maximum unloading rate of 175 tons per hour)	BF12	bagfilter (184 square feet of filter area) [Bin vent]
<b>Miscellaneous Support Services and Boilers</b>			
ES41 <b>NSPS Dc MACT DDDDD</b>	Landfill gas and natural gas-fired boiler (53 million Btu per hour heat input for landfill gas and 99 million Btu per hour for natural gas)	N/A	N/A
ES80 <b>MACT DDDDD</b>	Natural gas/landfill gas-fired boiler (9.9 million Btu per hour heat input)	N/A	N/A
ES84 <b>MACT ZZZZ</b>	Diesel-fired fire-pump (399 brake horsepower)	N/A	N/A
ES85 <b>MACT ZZZZ</b>	Diesel-fired fire-pump (399 brake horsepower)	N/A	N/A

## SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

### 2.1 - Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

#### A. Raw Soybean Storage and Handling Operations consisting of:

**Rail unloading system (ID No. ES1) with bagfilter (ID No. 1C)**

**Truck unloading system (ID No. ES2) with bagfilter (ID No. 2C)**

**Bean cleaning operation (ID No. ES4) with bagfilter (ID No. BF106) in series with cyclone (ID No. C106)**

**Direct-fired pre-cleaned soybean dryer (ID No. ES82)**

**Soybean storage silos (ID Nos. ES51, ES52, ES53, and ES54) with four bagfilters (one each, ID Nos. BF32, BF33, BF34, and BF35)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E=4.10P^{0.67}$ or $E=55.0P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input Grain dryer (ID No. ES-82) ONLY	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter	0% Opacity Grain dryer (ID No. ES-82) ONLY	15A NCAC 2D .0524 (40 CFR Part 60 Subpart DD)
Particulate matter	Limit soybean dryer throughput to less than 1,070,000 tons of soybeans processed per year	15A NCAC 2D .0530 Avoidance per 2Q .0317
Hazardous air pollutants	See Section 2.2.(D)(1)	15A NCAC 2D .1111 (MACT Subpart GGGG)

#### 1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

For process rates up to 30 tons per hour:

$$E = 4.10 \times P^{0.67} \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

For process rates greater than 30 tons per hour:

$$E = 55.0 \times P^{0.11} - 40 \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-A. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. Particulate matter emissions from the rail unloading system (ID No. ES1) and the truck unloading system (ID No. ES2) shall be controlled by the bagfilters (ID Nos. 1C and 2C, respectively). Particulate matter emissions from the bean cleaning operation (ID No. ES4) shall be controlled by the bagfilter (ID No. BF106) in series with one simple cyclone (ID No. C106). Particulate matter emissions from the soybean storage silos (ID Nos. ES51, ES52, ES53, and ES54) shall be controlled by the bagfilters (ID Nos. BF32, BF33, BF34, and BF35). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. a monthly visual inspection of the system ductwork and material collection units for leaks; and
  - ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters' structural integrity.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, cyclones, and bagfilters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the bagfilters and cyclones; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the cyclones and bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from the soybean dryer (ID No. ES82) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1-A. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in this combustion source.

**3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the above emission sources (ID Nos. ES1, ES2, ES4, ES51, ES52, ES53, and ES54) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1-A. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-A.2. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**4. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS**

[40 CFR PART 60, SUBPART DD]

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR 60, Subpart DD, including Subpart A “General Provisions.”

**Emission Limit** [40 CFR 60.302]

- b. No owner or operator shall cause to be discharged into the atmosphere any gases which exhibit greater than zero (0) percent opacity from any:
  - i. Column dryer with column plate perforation exceeding 2.4 millimeter (mm) diameter, and
  - ii. Rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh.

**Testing** [15A NCAC 2Q .0508(f)]

- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit above by testing this source (ID No. ES82) for visible emissions in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 – General Condition JJ. Testing for the dryer shall be completed and results submitted by within 180 days after initial startup and results submitted as specified in Specific Condition 2.1-A.3.f. below. If the required compliance tests are not conducted, or if the results of a compliance test exceed the limit given in Section 2.1-A.3.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. For the column-type grain dryer (ID No. ES82), the Permittee shall comply with the recordkeeping requirements in §60.7(b) of the General Provisions (40 CFR 60, Subpart A) by maintaining readily accessible records of:
  - i. start-up, shutdown, and malfunction periods,
  - ii. performance testing measurements,
  - iii. monitoring device calibration checks, and

iv. any adjustments and maintenance performed.

The Permittee shall keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §60.7(f).

**Monitoring/Reporting** [15A NCAC 2Q .0508(f)]

- e. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.
- f. The Permittee shall notify the Regional Supervisor within 15 days of initial startup of the dryer.
- g. Testing must be completed within 60 days of achieving maximum production rate, but not later than 180 days after startup and results submitted within 60 days of testing.

**5. 15A NCAC 2Q .0317: AVOIDANCE CONDITION for**

**15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION (Particulate)**

- a. In accordance with Rule 2Q .0317, the Permittee is avoiding the applicability of 15A NCAC 2D .0530(g) for particulate matter by limiting the soybean dryer (ID No. ES82) throughput to less than 1,070,000 tons per year of soybeans per consecutive 12-month period. [15A NCAC 2D .0530]

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508 (f)]

- b. The Permittee shall maintain records of bushels of soybeans processed per month in a logbook (written or electronic format), calculate and record of the amount of soybeans processed in tons at the end of each month. Per application submittal each bushel of soybeans weighs 60 pounds.  
The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or exceed the above limit.
- c. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
  - i. The monthly quantities in tons of soybeans processed must be calculated for each of the 12-month periods over the previous 14 months;
  - ii. All instances of deviations from the requirements of this permit must be clearly identified.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above reports are not submitted as required.

**B. Raw Soybean Processing Operations consisting of:**

**Bean cracking process (ID No. ES5) with bagfilter (ID No. BF65)**

**Soybean flaker process A and soybean flaker process B (ID Nos. ES6) with cyclone (ID No. 6C)**

**Secondary dehulling (ID No. ES12) with bagfilter (ID No. BF41) in series with two simple cyclones (ID Nos. C12A and C12C)**

**Scale for weighing soybean throughput (ID No. ES33) with one bagfilter (ID No. 1C)**

**Whole bean storage bin (ID No. ES39) with bagfilter (ID No. BF65) in series with simple cyclone (ID No. CF12B)**

**Primary Dehulling (ID No. ES65) with bagfilter (ID No. BF65) installed on the exhausts from two simple cyclones in parallel (ID No. C65D and C65E)**

**Vertical seed conditioner (ID No. ES83) – combination heater and dryer controlled by one high efficiency cyclone (ID No. CY83)**

**Screw conveyor (ID No. ES30) transports soybean meat “flakes” to extraction process (ID No. ES31A)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E=55.0P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Hazardous air pollutants	See Section 2.2.(D)(1)	15A NCAC 2D .1111 (MACT Subpart GGGG)

# **1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

For process rates greater than 30 tons per hour:

$$E = 55.0 \times P^{0.11} - 40 \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-B.1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. Particulate matter emissions from the bean cracking process (ID No. ES5) shall be controlled by bagfilter (ID No. BF65), the scale (ID No. ES33) shall be controlled by bagfilter (ID No. 1C) and the whole bean storage bin (ID No. ES39) shall be controlled by bagfilter (ID No. BF65) and a cyclone (ID Nos. CF12B). Particulate matter emissions from the soybean flaker processes (ID No. ES6) shall be controlled by the cyclone (ID No. 6C). Particulate matter emissions from the secondary dehulling operation (ID No. ES12) shall be controlled by a bagfilter (ID Nos. BF41) in series with two simple cyclones (ID Nos. C12A and C12C). Particulate matter emissions from the primary dehulling operation (ID No. ES65) shall be controlled by a bagfilter (ID No. BF65) installed on the exhausts from two simple cyclones in parallel (ID Nos. C65D and CD65E). Particulate matter emissions from the vertical seed conditioner (ID No. ES83) shall be controlled by a cyclone (ID No. CY83). Particulate matter emissions from the screw conveyor (ID No. ES30) are uncontrolled. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork and material collection units for leaks; and
  - an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters' structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, cyclones, and bagfilters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- the date and time of each recorded action;
  - the results of each inspection;
  - the results of any maintenance performed on the bagfilters and cyclones; and
  - any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the cyclones and bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the above emission sources (ID Nos. ES5, ES6, ES12, ES30, ES33, ES39, ES65 and ES83) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1-B. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-B.2. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.



**C. Meal Drying and Cooling Operations consisting of:**

**Steam heated soybean meal dryer and cooler (ID No. ES-15) controlled by four cyclones in parallel (ID No. CY15A through CY15D)**

The following table provides a summary of limits and standards for the emission source(s) described above.

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Particulate matter	$E=55.0P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Odors	See Section 2.2.(A)(1); <b>State-enforceable only</b>	15A NCAC 2D .1806
Toxic air pollutants	See Section 2.2.(A)(2); <b>State-enforceable only</b>	15A NCAC 2D .1100
Volatile organic compounds	See Section 2.2.(B)(1)	15A NCAC 2D .0958
Volatile organic compounds	See Section 2.2.(C)(1)	15A NCAC 2Q .0317 (Avoidance of 2D .0530)
Hazardous air pollutants	See Section 2.2.(D)(1)	15A NCAC 2D .1111 (MACT Subpart GGGG)

**1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from this source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

For process rates greater than 30 tons per hour:

$$E = 55.0 \times P^{0.11} - 40 \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-C. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. Particulate matter emissions from the steam heated soybean meal dryer and cooler (ID No. ES15) shall be controlled by four cyclones in parallel (ID Nos. CY15A through CY15D). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include a monthly visual inspection of the system ductwork and material collection units for leaks. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and cyclones are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- the date and time of each recorded action;
  - the results of each inspection;
  - the results of any maintenance performed on the cyclones; and
  - any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the cyclones within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the above emission source (ID No. ES15) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1-C. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-C.2. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**D. Soybean Oil/Hexane Solvent Extraction and Oil Desolventizing Process consisting of:**

**Soybean oil/hexane solvent extraction process (ID No. ES31A) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)**

**Desolventizer – Toaster (ID No. ES31B) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)**

**Two underground hexane storage tanks (ID Nos. ES29A and ES29B) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)**

**Floor Sweep Fans No. 1 and No. 2 (ID No. ES32A and ES32B)**

The following provides a summary of limits and/or standards for the emission source(s) described above.

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Odors	See Section 2.2.(A)(1); <b>State-enforceable only</b>	15A NCAC 2D .1806
Toxic air pollutants	See Section 2.2.(A)(2); <b>State-enforceable only</b>	15A NCAC 2D .1100
Volatile organic compounds	See Section 2.2.(B)(1)	15A NCAC 2D .0958
Volatile organic compounds	See Section 2.2.(C)(1)	15A NCAC 2Q .0317 Avoidance of 2D .0530
Hazardous air pollutants	See Section 2.2.(D)(1)	15A NCAC 2D .1111 (MACT Subpart GGGG)

# **1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the above emission sources (ID No. ES31, ES29 and ES32) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

## **Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1-D. 1. a. (ID No. ES31) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

## **Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish “normal” for the source (ID No. ES31) in the first 30 days following the effective date of the permit or within 30 days following the construction of the source, whichever is later. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-D. 1. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

## **Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- the date and time of each recorded action;
  - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - the results of any corrective actions performed.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

## **Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

## E. Refinery Support Services consisting of:

**Fine clay receiving operation consisting of a clay truck unloading area and the clay receiving tank bin vent (ID No. ES25) with bagfilter (ID No. BF12)**

The following table provides a summary of limits and standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521

### 1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from this source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

For process rates less than 30 tons per hour:

$$E = 4.10 \times P^{0.67} \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

#### **Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

#### **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. Particulate matter emissions from the fine clay receiving operation (ID No. ES25) shall be controlled by bagfilter (ID No. BF12). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork and material collection units for leaks; and
  - an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters' structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- the date and time of each recorded action;
  - the results of each inspection;
  - the results of any maintenance performed on the bagfilters; and
  - any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

#### **Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and

December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the above emission source (ID Nos. ES25) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1-E.2.a. (ID Nos. ES25) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-E. 2. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- the date and time of each recorded action;
  - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - the results of any corrective actions performed.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**F. Meal and Hull Handling, Storage and Loadout Operations consisting of:**

**Meal and hull loading rail station (ID No. ES3A) controlled by bagfilter (ID No. BF72)**

**Meal and hull loading truck station (ID No. ES3B) controlled by bagfilter (ID No. BF232)**

**Meal grinding operation consisting of meal grinding, sifting and conveying process (ID No. ES11) controlled by bagfilter (ID No. BF9)**

**Hull grinding operation fed by primary and secondary dehulling operations (ID No. ES18A) controlled by bagfilter (ID No. BF65) installed on the exhaust from two cyclones in parallel (ID Nos. CY9 and CY10)**

**Hull storage tanks 60 and 61 (ID Nos. ES27 and ES61) controlled by bagfilter (ID No. BF72)**

**Three meal storage tanks (ID Nos. ES62, ES63, and ES64) controlled by bagfilter (ID No. BF232)**

**Meal leg/hull conveyor (ID No. ES316) controlled by bagfilter (ID No. BF232)**

The following table provides a summary of limits and standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E=4.10P^{0.67}$ or $E=55.0P^{0.11} - 40$  Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Hazardous air pollutants	See Section 2.2.(D)(1)	15A NCAC 2D .1111 (MACT Subpart GGGG)

# **1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

For process rates less than 30 tons per hour:

$$E = 4.10 \times P^{0.67} \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

For process rates greater than 30 tons per hour:

$$E = 55.0 \times P^{0.11} - 40 \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

## **Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-F.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

## **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. Particulate matter emissions from the meal and hull loading rail station (ID Nos. ES3A) shall be controlled by bagfilter (ID No. BF72). Particulate matter emissions from the meal and hull loading truck station (ID No. ES3B) shall be controlled by bagfilter (ID No. BF232). Particulate matter emissions from the meal grinding operation (ID No. ES11) shall be controlled by bagfilter (ID No. BF9). Particulate matter emissions from the hull grinding operation (ID No. ES18A) shall be controlled by bagfilter (ID No. BF65) installed on the exhaust from two cyclones in parallel (ID Nos. CY9 and CY10). Particulate matter emissions from the hull storage tanks 60 and 61 (ID Nos. ES27 and ES61) shall be controlled by bagfilter (ID No. BF72). Particulate matter emissions from the three meal storage tanks (ID Nos. ES62, ES63, and ES64) shall be controlled by bagfilter (ID No. BF232) and particulate matter emissions from the meal leg/hull conveyor (ID No. ES316) shall be controlled by the bagfilter (ID No. BF232). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork and material collection units for leaks; and
  - an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters' structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, cyclones, and bagfilters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- the date and time of each recorded action;
  - the results of each inspection;
  - the results of any maintenance performed on the bagfilters and cyclones; and
  - any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the above emission sources (ID Nos. ES3A, ES3B, ES11, ES18A, ES27, ES61, ES62, ES63, ES64, and ES316) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1-F.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-F.2.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**G. Oil Refinery (ID No. ES34) Operation (both Fayetteville & Non-Fayetteville) consisting of:**

**Refinery building, deodorizer, storage tanks, truck loading area and refinery sump**

The following table provides a summary of limits and standards for the emission source(s) described above.

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Odors	See Section 2.2.(A)(1); <b>State-enforceable only</b>	15A NCAC 2D .1806
Toxic air pollutants	See Section 2.2.(A)(2); <b>State-enforceable only</b>	15A NCAC 2D .1100
Volatile organic compounds	See Section 2.2.(B)(1)	15A NCAC 2D .0958
Volatile organic compounds	See Section 2.2.(C)(1)	15A NCAC 2Q .0317 Avoidance of 2D .0530

**1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the above emission source (ID No. ES34) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1-G.1.a. (ID No. ES-34) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-G.1.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- the date and time of each recorded action;
  - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - the results of any corrective actions performed.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.



**H. Landfill gas and natural gas-fired boiler (ID No. ES-41)  
Natural Gas/Landfill Gas-fired boiler (ID No. ES-80)**

The following provides a summary of emission and/or operation limits for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.256 lb/million Btu heat input (ID No. ES-41) 0.303 lb/million Btu heat input (ID No. ES-80)	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input (ID Nos. ES-41 and ES-80)	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Record keeping ONLY	Monthly records of gas use (ID No. ES-41)	15A NCAC 2D .0524 40 CFR 60, Subpart Dc
Hazardous Air Pollutants Total Selected Metals Mercury HCl - Equivalent Carbon Monoxide	Best Combustion Practices (ID Nos. ES-41 and ES-80) .0002 lbs/MMBtu 5.0e-06 lbs/MMBtu 188.5 pounds/hour 269 ppmvd, corrected to 7% O <sub>2</sub>	15A NCAC 2D .1109 CAA §112(j)
Hazardous Air Pollutants	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (ID Nos. ES-41 and ES-80)	15A NCAC 2D .1111 40 CFR 63, Subpart DDDDD

**1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**

- a. Emissions of particulate matter from the combustion of natural gas and landfill gas that are discharged from the boiler (**ID No. ES-41**) into the atmosphere shall not exceed 0.256 lb/million Btu heat input. [15A NCAC 2D .0503(a)]

- b. Emissions of particulate matter from the combustion of natural gas and landfill gas that are discharged from the boiler (**ID No. ES-80**) into the atmosphere shall not exceed 0.303 lb/million Btu heat input. [15A NCAC 2D .0503(a)]

**Testing** [15A NCAC 2Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1-H.1.a. and b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

**Monitoring/ Recordkeeping/ Reporting** [15A NCAC 2Q .0508(f)]

- d. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas and landfill gas.

**2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these boilers (**ID Nos. ES-41 and ES-80**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-H.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from natural gas and landfill gas.

**3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from these boilers (**ID Nos. ES41 and ES-80**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-H.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas and landfill gas.

**4. 15A NCAC 2D .0524 (40 CFR 60, Subpart Dc): Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions." [15A NCAC 2D .0524]

**Monitoring/Recordkeeping** [§60.48c(g)]

- b. For the boiler (**ID No. ES-41**), the Permittee shall record and maintain records of the amount of each fuel combusted during each operating day. For natural gas and landfill gas, the Permittee can elect to record and maintain records of the amount of each of these fuels combusted during each calendar month.
- c. All records required under §60.48c (Section 2.1-HI.4.b. above) shall be maintained by the Permittee for a period of two years following the date of such record. If the records are not kept for a period of two years following the date of such records, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. In addition to any other recordkeeping required by 40 CFR § 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. No reporting is required from the firing of natural gas in this source.

**5. 15A NCAC 2D .1109: CAA § 112(j); Case-by-Case MACT for Boilers & Process Heaters**

The Permittee shall comply with this CAA §112(j) standard until May 19, 2019. The initial compliance date for the applicable CAA §112(d) standard for "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters" is May 20, 2019.

- a. The following emission standards shall apply when firing landfill gas and natural gas:  
(A) Hydrogen Chloride-Equivalent: 0.0409 lb/million Btu (**ID No. ES-41**) and 0.0414 lb/million Btu (**ID No. ES-80**)

Hydrogen Chloride-equivalent is defined by the following equation:

$$E = E_{\text{HCl}} + E_{\text{Cl}_2} * (\text{RfC}_{\text{HCl}} / \text{RfC}_{\text{Cl}_2})$$

Where:

E	=	HCl-equivalent emission rate
$E_{\text{HCl}}$	=	HCl emission rate;
$E_{\text{Cl}_2}$	=	$\text{Cl}_2$ emission rate;
$\text{RfC}_{\text{HCl}}$	=	Reference concentration for HCl ( $20 \mu\text{g}/\text{m}^3$ ); and
$\text{RfC}_{\text{Cl}_2}$	=	Reference concentration for $\text{Cl}_2$ ( $0.20 \mu\text{g}/\text{m}^3$ ).

This limit shall apply all times, except for periods of startup, shutdown, and malfunction. The Permittee shall follow the procedures in 15A NCAC 2D .0535 for any excess emissions that occur during the periods of startup, shutdown, or malfunction.

- b. The Permittee shall use best combustion practices when operating the affected boilers (**ID Nos. ES-41 and ES-80**) to control emissions of hazardous air pollutants.
- c. The initial compliance date for HCl-equivalent emission standard and good combustion control work practice standard, and associated monitoring, record keeping and reporting requirements is April 27, 2013. These terms need not be included in the annual compliance certification until after the initial compliance date.
- d. The Permittee shall comply with this CAA §112(j) standard until **May 22, 2019**. The initial compliance date for the applicable CAA §112(d) standard for “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters” is **May 23, 2019**.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- e. To assure compliance, the Permittee shall perform an annual boiler inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
  - i. Inspect the burner, and clean or replace any components of the burner as necessary;
  - ii. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and,
  - iii. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.

The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the affected boilers are not inspected and maintained as required above.

- f. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date of each recorded action;
  - ii. The results of each inspection; and,
  - iii. The results of any maintenance performed on the boilers.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- g. No reporting is required for emissions of hazardous air pollutants from the firing of natural gas and landfill gas in these boilers.

**6. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

**Applicability** [40 CFR 63.7485, §63.7490(d), §63.7499(m)]

- a. For the existing source (ID No. ES-41) designed to burn gas 2 (other) fuels with a heat input capacity 10 million Btu per hour or greater, the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" (Subpart 5D) and Subpart A "General Provisions."

- i. The Permittee shall comply with the CAA §112(j) standard in Section XYZ through **May 19, 2019**. The Permittee shall be subject to the requirements of this standard starting May 20, 2019. Note that the requirements of this standard may require action on behalf of the Permittee prior to May 20, 2019.

**Definitions and Nomenclature** [§63.7575]

- b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

**40 CFR Part 63 Subpart A General Provisions** [§63.7565]

- c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to Subpart 5D.

**Compliance Date** [§63.7510(e), §63.56(b)]

- d. The Permittee shall:
  - i. Complete the initial tune up and the one-time energy assessment (i.e., conditions p through s) no later than May 20, 2019.
  - ii. Complete the initial compliance requirements in condition k no later than November 16, 2019 and according to the applicable provisions in §63.7(a)(2).

**General Compliance Requirements** [§63.7505(a), §63.7500]

- e. At all times the affected unit(s) is operating, the Permittee shall be in compliance with the emission standards in condition g, except during periods of startup and shutdown. During startup and shutdown, the Permittee shall comply only with items 5 and 6 of Table 3 of Subpart 5D.
- f. At all times, then Permittee shall operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

**Emission Limits** [15A NCAC 02Q .0508(f), §63.7500(a)(1), Table 2]

- g. The affected units shall meet the following emission limits:

Pollutant	Emission Limit
Hydrochloric Acid(HCl)	1.7E-03 lb per MMBtu of heat input
Mercury (Hg)	7.9E-06 lb per MMBtu of heat input
Carbon monoxide (CO)	130 ppm by volume on a dry basis corrected to 3 percent oxygen
Filterable Particulate Matter(PM) or Total Suspended Metals (TSM)	6.7E-03 lb per MMBtu of heat input or 2.1E-04 lb per MMBtu of heat input

**Testing** [15A NCAC 2Q .0508(f)]

- h. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test(s) are above the limit given in condition g. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

**Notifications** [15A NCAC 02Q .0508(f), §§63.7545, 63.7530]

- i. The Permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.
- j. For the initial compliance demonstration for each affected source, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all affected sources at the facility. The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8) of §63.7545 as applicable.  
[§§63.9(h)(2)(ii), 63.10(d)(2), 63.7545(e)]

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the requirements in conditions I through j are not met.

**Initial compliance requirements** [15A NCAC 02Q .0508(f), §63.7510]

- k. The Permittee shall demonstrate compliance with the limits in condition i. by conducting initial performance test(s) and fuel analyses, establishing operating limits and conducting continuous monitoring system (CMS) evaluation(s) as necessary according to §§63.7510, 63.7525 and 63.7530.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the requirements in condition k are not met.

**Subsequent compliance requirements** [15A NCAC 02Q .0508(f), §63.7515]

- l. The Permittee shall conduct subsequent performance tests and fuel analyses as necessary according to §63.7515.
- m. The Permittee shall demonstrate continuous compliance with each emission limit and operating limit that applies according to §63.7540.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the requirements in conditions l through m are not met.

**Monitoring requirements** [15A NCAC 2Q .0508(f), §63.7525]

- n. The Permittee shall install, operate, and maintain an oxygen analyzer system, as defined in §63.7575, or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen (or carbon dioxide) according to the procedures §63.7525(a).
- o. The Permittee shall meet the requirements for all monitoring systems as applicable according to §63.7525.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the requirements in conditions n through o are not met.

**Work Practice Standards** [15A NCAC 02Q .0508(f)]

- p. The Permittee shall conduct a tune-up of the source(s) every year as specified below. The Permittee shall conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up.
  - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown;
  - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
  - iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject; and
  - v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.  
[§§63.7500(a), §63.7540(a)(10)]
- q. Each tune-up shall be conducted no more than 13 months after the previous tune-up. [40CFR 63.7515(d)]
- r. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [§63.7540(a)(13), §63.7515(g)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in conditions p through r are not met.

**Energy Assessment Requirements** [15A NCAC 02Q .0508(f)]

- s. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. The energy assessment must address the requirements in Subpart 5D, Table 3, with the extent of the evaluation for items (a) to (e) in Table 3 appropriate for the on-site technical hours listed in §63.7575: An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. [§63.7500(a)(1), Table 3]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in conditions s are not met.

**Recordkeeping Requirements** [15A NCAC 02Q .0508(f), §63.7555]

- t. The Permittee shall:
  - i. Keep a copy of each notification and report submitted to comply with Subpart 5D, including all documentation supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted.  
[§§63.7555(a)(1), 63.10(b)(2)(xiv)]
  - ii. Keep records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations. [§63.10(b)(2)(viii)]
  - iii. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:
    - A. The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
    - B. A description of any corrective actions taken as a part of the tune-up; and
    - C. the type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.  
[§63.7540(a)(10)(vi)]
  - iv. For each CEMS, COMS, and continuous monitoring system, keep records according to paragraphs (b)(1) through (5) of §63.7555.
  - v. Keep records required in Table 8 of Subpart 5D including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies.
  - vi. Keep the applicable records in paragraphs (d)(1) through (13) of §63.7555.
- u. The Permittee shall:
  - i. Maintain records in a form suitable and readily available for expeditious review;
  - ii. Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
  - iii. Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.  
[§63.7560, §63.10(b)(1)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in conditions t through u are not met.

**Reporting Requirements** [15A NCAC 02Q .0508(f), §63.7550]

- v. The Permittee shall submit a compliance report to the DAQ on a semi-annual basis, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June.
  - i. The first compliance report shall be postmarked on or before July 30, 2019 and cover the period from May 20, 2019 through June 30, 2019.
  - ii. The compliance reports shall also be submitted electronically to the EPA via the procedures in §63.7550(h).
- w. The compliance report shall contain:
  - i. The information in §63.7550(c) as applicable.
  - ii. For each deviation from an emission limit or operating limit, the report shall contain the information in §63.7550(d) and (e) as applicable.
- x. Within 60 days after the date of completing each performance test (defined in §63.2) including any associated fuel analyses and/or CEMS performance evaluation (defined in §63.2) as required by Subpart 5D, the Permittee shall submit the results to the DAQ pursuant to 63.10(d)(2) and to the EPA via the procedures in §63.7550(h).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in conditions v through x are not met.

**7. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

**Applicability** [40 CFR 63.7485, §63.7490(d), §63.7499(m)]

- a. For the existing source (ID No. ES-80) designed to burn gas 2 (other) fuels with a heat input capacity less than 10 million Btu per hour, the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."
- i. The Permittee shall comply with the CAA §112(j) standard in Section XYZ through **May 19, 2019**. The Permittee shall be subject to the requirements of this standard starting May 20, 2019. Note that the requirements of this standard may require action on behalf of the Permittee prior to May 20, 2019.

**Definitions and Nomenclature** [§63.7575]

- b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

**40 CFR Part 63 Subpart A General Provisions** [§63.7565]

- c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD.

**Compliance Date** [§§63.7510(e), 63.56(b)]

- d. The Permittee shall complete the initial tune up and the one-time energy assessment no later than May 20, 2019.

**General Compliance Requirements** [§§63.7505(a), 63.7500]

- e. At all times, then Permittee shall operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

**Notifications** [§§63.7545(e), 63.7530(e), (f)]

- f. The Permittee shall submit an initial Notification of Compliance Status. The notification must be submitted and postmarked by July 19, 2019. The notification shall contain the following:
  - i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under §241.3, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of §241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.
  - ii. The following certification(s) of compliance, as applicable, and signed by a responsible official:
    - A. "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi) [i.e., condition g. below]."
    - B. "This facility has had an energy assessment performed according to §63.7530(e) [i.e., condition k. below]." and that "the assessment is an accurate depiction of your facility at the time of the assessment", or that "the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended."
    - C. Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit."

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in condition f are not met.

**Work Practice Standards** [15A NCAC 02Q .0508(f)]

- g. The Permittee shall conduct a tune-up of the source(s) every 2 years as specified below. The Permittee shall conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up.
  - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown;
  - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
  - iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject; and
  - v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
- [§§63.7500(a), 63.7540(a)(10), (11)]
- h. Each tune-up shall be conducted no more than 25 months after the previous tune-up. [§ 63.7515(d)]
- i. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [§§63.7540(a)(13), 63.7515(g)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in condition g through i are not met.

**Energy Assessment Requirements** [15A NCAC 02Q .0508(f)]

- j. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. The energy assessment must address the requirements in 40 CFR 63 Subpart DDDDD, Table 3, with the extent of the evaluation for items (a) to (e) in Table 3 appropriate for the on-site technical hours listed in §63.7575: An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. [§63.7500(a)(1), Table 3]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in condition j are not met.

**Recordkeeping Requirements** [15A NCAC 02Q .0508(f), §63.7555]

- k. The Permittee shall:
  - i. Keep a copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted. [§§63.7555(a)(1), 63.10(b)(2)(xiv)]
  - ii. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:
    - A. The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
    - B. A description of any corrective actions taken as a part of the tune-up; and
    - C. the type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
- [§63.7540(a)(10)(vi)]
- l. The Permittee shall:
  - i. Maintain records in a form suitable and readily available for expeditious review;
  - ii. Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
  - iii. Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.
- [§§63.7560, 63.10(b)(1)]



The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in conditions k through l are not met.

**Reporting Requirements** [15A NCAC 02Q .0508(f)]

- m. The Permittee shall submit compliance reports to the DAQ on a 2-year basis.
  - i. The first report shall cover the period beginning on May 20, 2019 and ending on December 31, 2020. Subsequent 2-year reports shall cover the dates of January 1 to December 31 of each year. The Permittee shall submit the compliance reports postmarked on or before January 30 following the end of each 2-year period. [§§63.7550(a), (b), 63.10(a)(4), (5)]
  - ii. The compliance reports shall also be submitted electronically to the EPA via the procedures in §63.7550(h).
- n. The compliance report shall contain the following information:
  - i. Company name and address;
  - ii. Process unit information, emissions limitations, and operating parameter limitations;
  - iii. Date of report and beginning and ending dates of the reporting period;
  - iv. The date of the most recent tune-up for each unit required according to condition g. Include the date of the most recent burner inspection if it was not done on a 2-year period and was delayed until the next scheduled or unscheduled unit shutdown; and
  - v. A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
 [§§63.7550(a) and (c), Table 9]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in conditions m through n are not met.

**I. Two – 399 brake horsepower (297.5 kW) Diesel-fired Emergency Fire Pumps (ID Nos. ES84 and ES85)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity each	15A NCAC 2D .0521
Multiple emissions	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)	15A NCAC 2D .0524 40 CFR 60, Subpart IIII
Hazardous air pollutants	Maximum Achievable Control Technology: National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines	15A NCAC 2D .1111 40 CFR Part 63, Subpart ZZZZ

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from the emergency fire pump (ID Nos. ES84 and ES85) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1.I.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from firing diesel fuel in any emergency engine.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the emergency fire pump (ID Nos. ES84 and ES85) shall not be more than 20 percent opacity each when averaged over a six-minute period. However, six-minute averaging periods may exceed 20

percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit provided in Section 2.1.I.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting**

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of diesel fuel in any emergency engine.

**3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS**

**Applicability** [15A NCAC 2Q .0508(f), 40 CFR 60.4200(a)(2)(ii)]

- a. For these fire pump engines, the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," including Subpart A "General Provisions."

**General Provisions** [15A NCAC 2Q .0508(f)]

- b. Pursuant to 40 CFR 60.4218, The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 8 of 40 CFR 60 Subpart IIII.

**Emission Standards** [15A NCAC 2Q .0508(f)]

- c. The Permittee shall comply with the emission standards in Table 4 of NSPS subpart IIII for all pollutants, for the same model year and maximum engine power for this engine. [40CFR 60.4205(c)]

<b>Pollutant</b>	<b>Emission Limits (g/kW-hr)</b>
NMHC + NO <sub>x</sub>	4.0
CO	--
PM	0.20

**Fuel Requirements** [15A NCAC 2Q .0508(f)]

- d. The Permittee shall use diesel fuel in the engine with:
- a maximum sulfur content of 15 ppm; and
  - a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
- [40 CFR 60.4207(b) and 40 CFR 80.510(b)]

**Testing** [15A NCAC 2Q .0508(f)]

- e. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in conditions c. and d. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

**Monitoring** [15A NCAC 2Q .0508(f)]

- f. The engine has the following monitoring requirements:
- The engines shall be equipped with a non-resettable hour meter prior to startup. [40CFR 60.4209(a)]
  - The engine, if equipped with a diesel particulate filter, must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40CFR 60.4209(b)]

**Compliance Requirements** [15A NCAC 2Q .0508(b)]

- g. The Permittee shall:
- operate and maintain the engines and control devices according to the manufacturer's emission related-written instructions over the entire life of the engine;
  - change only those emission-related settings that are permitted by the manufacturer; and
  - meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable.
- [40CFR 60.4206 and 60.4211(a)]

- h. The Permittee shall comply with the emission standards in condition c. by purchasing an engine certified to the emission standards in condition c. The engine shall be installed and configured according to the manufacturer's emission-related specifications. [40CFR 60.4211(c)]
- i. In order for the engine to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited.
  - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
  - (2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (i)(2)(i) through (iii) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (i)(3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (i)(2).
    - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
    - (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
    - (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
  - (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (i)(2) of this condition. Except as provided in paragraph (i)(3)(i) of this condition, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
    - (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
      - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
      - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
      - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
      - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
      - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40CFR 60.4211(f)]

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in conditions f. through i. are not met.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- j. To assure compliance, the Permittee shall perform inspections and maintenance on the engine as recommended by the manufacturer per 40 CFR 60.4206 and 40 CFR 60.4211(a). The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;

- ii. the results of each inspection;
- iii. the results of any maintenance performed on the engine;
- iv. any variance from manufacturer's recommendations, if any, and corrections made;
- v. the hours of operation of the engine in emergency and non-emergency service. [40 CFR 60.4214(b)]
- vi. if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)]; and
- vii. documentation from the manufacturer that the engine is certified to meet the emission standards in condition c.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- k. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit shall be clearly identified.
- l. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in conditions (i)(2)(ii) and (iii) or that operates for the purposes specified in condition (i)(3)(i), the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). This report must be submitted to the Regional Supervisor and the EPA. [40 CFR 60.4214(d)]

**4. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY, 40 CFR Part 63, Subpart ZZZZ "National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines"**

**Applicability** [40 CFR 63.6585, 6590(a)(2)(ii)]

- a. For these engines (stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions) the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart ZZZZ, "National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

**Stationary RICE subject to Regulations under 40 CFR Part 60** [15 A NCAC 2Q. 0508(f)]

- b. Pursuant to 40 CFR 63.6590(c)(6), these sources must meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR part 60 subpart IIII. No further requirements apply for these engines under 40 CFR 63 Subpart ZZZZ and Subpart A.

If the requirements in condition b. are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

## 2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

### STATE-ONLY REQUIREMENTS

#### A. Facility-wide affected sources

The above emission sources are subject to this multiple emission source limit.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	Odorous emissions shall be controlled; <b>State- enforceable only</b>	15A NCAC 2D .1806
Toxic air pollutants	A facility shall not emit any of the listed toxic air pollutants in such quantities that may cause or contribute beyond the premises to any significant ambient air concentration that may adversely affect human health. <b>State-enforceable only</b>	15A NCAC 2D .1100
Toxic air pollutants	Emissions of toxic air pollutants have been demonstrated on a facility-wide basis	15A NCAC 2Q .0705

#### **STATE-ENFORCEABLE ONLY**

##### 1. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

#### **STATE-ENFORCEABLE ONLY**

##### 2. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANT EMISSIONS

- a. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxics compliance demonstration, the following permit limits shall not be exceeded:

TOXIC AIR POLLUTANT(S)	EMISSION SOURCE(S)	EMISSION LIMIT(S)
Arsenic & Compounds (total mass of elemental AS, arsine and all inorganic compounds) (ASC-7778394)	53/99 million Btu/hr Boiler (ID No. ES41)	0.2 lb/yr
	9.9 million Btu/hr Boiler (ID No. IES80)	0.03 lb/yr
Benzene (CAS# 71-43-2)	53/99 million Btu/hr Boiler (ID No. ES41)	1.8 lb/yr
	9.9 million Btu/hr Boiler (ID No. IES80)	0.34 lb/yr
Beryllium (CAS# 7440-41-7)	53/99 million Btu/hr Boiler (ID No. ES41)	0.01 lb/yr
	9.9 million Btu/hr Boiler (ID No. IES80)	0.002 lb/yr
Cadmium (CAS# 7440-43-9)	53/99 million Btu/hr Boiler (ID No. ES41)	0.9 lb/yr
	9.9 million Btu/hr Boiler (ID No. IES80)	0.2 lb/yr
Soluble Chromate compounds, as Chromium IV equivalent	53/99 million Btu/hr Boiler (ID No. ES41)	0.003 lb/day
	9.9 million Btu/hr Boiler (ID No. IES80)	0.0006 lb/day
bioavailable Chromate pigments, as Chromium IV equivalent	53/99 million Btu/hr Boiler (ID No. ES41)	0 lb/yr
	9.9 million Btu/hr Boiler (ID No. IES80)	0 lb/yr
Fluorides	53/99 million Btu/hr Boiler (ID No. ES41)	0 lb/hr 0 lb/day
	9.9 million Btu/hr Boiler (ID No. IES80)	0 lb/hr 0 lb/day

TOXIC AIR POLLUTANT(S)	EMISSION SOURCE(S)	EMISSION LIMIT(S)
Formaldehyde (CAS# 50-00-0)	53/99 million Btu/hr Boiler (ID No. ES41)	0.007 lb/hr
	9.9 million Btu/hr Boiler (ID No. IES80)	0.001 lb/hr
n-Hexane (CAS # 110-54-3)	Steam heated soybean meal dryer and cooler (ID No. ES15) <sup>3</sup>	1,509 lb/day
	Soybean Oil/Hexane Extraction Process (ID No. ES31A and ES31B)	188.7 lb/day
	Floor Sweep #1 (ID No. ES32A)	404.2 lb/day
	Floor Sweep #2 (ID No. ES32B)	404.2 lb/day
	Oil Refinery (ID No. ES34)	230.1 lb/day
	53/99 million Btu/hr Boiler (ID No. ES41)	4.2 lb/day
	9.9 million Btu/hr Boiler (ID No. IES80)	0.8 lb/day

- i. To ensure compliance with the above limits, the following restrictions shall apply:
  - (A) total hexane received by the facility shall be limited to 75% n-hexane by weight; and
  - (B) highest percent n-hexane by weight per shipment received shall be recorded in a logbook and made available to DAQ personnel upon request. The MSDS sheets for all hexane received shall also be maintained and made available to DAQ personnel upon request.
  - (C) 24 hour production limit shall not exceed 100,034 bushels of soybeans to avoid triggering toxics for n-Hexane from the meal dryer (ID No. ES15), "actual emissions are capped"<sup>4</sup>
- ii. For compliance purposes, within 30 days after each calendar year quarter, the highest percent n-hexane by weight per shipment received of total hexane received by the facility shall be reported to the Regional Supervisor, Division of Air Quality (DAQ).

**STATE-ENFORCEABLE ONLY**

**3. STATE-ENFORCEABLE ONLY 15A NCAC 2Q .0705: EXISTING FACILITIES AND SIC CALLS for TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT**

- a. As of 3/7/2008 emissions of toxic air pollutants have been demonstrated on a facility-wide basis (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions") that each of the toxic air pollutants (TAPs) emitted from all sources at the facility are either below its respective toxic permit emission rates (TPER) listed in 15A NCAC 2Q .0711 - "Emission Rates Requiring a Permit" or the TAPs are in compliance with 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" as described elsewhere in this permit.
- b. The facility shall be operated and maintained in such a manner that any new, existing or increased actual emissions of any TAP listed in 15A NCAC 2Q .0711 or in this permit from all sources at the facility (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions"), including fugitive emissions and emission sources not otherwise required to have a permit, will not exceed its respective TPER listed in 15A NCAC 2Q .0711 without first obtaining an air permit to construct or operate.
- c. PRIOR to exceeding any of the TPERs listed in 15A NCAC 2Q .0711, the Permittee shall be responsible for obtaining an air permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".
- d. The Permittee shall maintain at the facility records of operational information sufficient for demonstrating to the Division of Air Quality staff that actual TAPs are less than the rate listed in 15A NCAC 2Q .0711.

<sup>3</sup> The new Steam heated soybean meal dryer and cooler (ID No. ES15) was not included in the previously approved toxics demonstration. The facility requested removal of Meal Drying (ID No. ES13) and Meal Cooling (ID No. ES14) with this permit modification. The new meal dryer and cooler emissions will not exceed the previously modeled emission rate for ES13; thus, new modeling is not required. The replacement extractor will be limited to the existing limit also; thus, no new modeling was required.

<sup>4</sup> Please refer to issued Permit No. 03903R21 dated March 15, 2002 and review (Application No. 2600016.02A). This limit has inadvertently been left out of Cargill's permit since that time.

**STATE-ENFORCEABLE ONLY****4. STATE-ENFORCEABLE ONLY 15A NCAC 2Q .0712 CALLS BY THE DIRECTOR**

- a. As of 8/4/2009 emissions of toxic air pollutants have been demonstrated on a source-by-source basis, including combustion sources per a Director's Call, that each of the toxic air pollutants (TAPs) emitted from all sources at the facility are either below its respective toxic permit emission rates (TPER) listed in 15A NCAC 2Q .0711 - "Emission Rates Requiring a Permit" or the TAPs are in compliance with 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" as described elsewhere in this permit.

**B. Facility-wide affected sources**

The above emission sources are subject to this multiple emission source limit.

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Volatile organic compounds	Work practice standards	15A NCAC 2D .0958

**1. 15A NCAC 2D .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS**

- a. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions, and whose emissions of VOC are greater than 15 pounds per day; the Permittee shall:
- store all material, including waste material, containing volatile organic compounds in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
  - clean up spills of volatile organic compounds as soon as possible following proper safety procedures,
  - store wipe rags containing volatile organic compounds in closed containers,
  - not clean sponges, fabric, wood, paper products, and other absorbent materials with volatile organic compounds,
  - transfer solvents containing volatile organic compounds used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under section 402 of Clean Water Act,
  - clean mixing, blending, and manufacturing vats and containers containing volatile organic compounds by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under section 402 of the Clean Water Act. [15A NCAC 2D .0958(c)]
- b. When cleaning parts with a solvent containing a volatile organic compound, the Permittee shall:
- flush parts in the freeboard area,
  - take precautions to reduce the pooling of solvent on and in the parts,
  - tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
  - not fill cleaning machines above the fill line,
  - not agitate solvent to the point of causing splashing. [15A NCAC 2D .0958(d)]

**Monitoring**

- c. To assure compliance with paragraphs (a) and (b) above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing volatile organic compounds. The inspections shall be conducted during normal operations. If the required inspections are not conducted the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

**Recordkeeping**

- d. The results of the inspections shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- the date and time of each inspection; and

- ii. the results of each inspection noting whether or not noncompliant conditions were observed. If the required records are not maintained the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

**Reporting**

- e. The Permittee shall submit a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**C. Facility-Wide Affected Sources including but not limited to the following primary Vegetable Oil Processing Sources:**

- **Soybean Oil/Hexane Solvent Extraction and Oil Desolventizing Process consisting of:**

Soybean oil/hexane solvent extraction process (ID No. ES31A) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)

Desolventizer – Toaster (ID No. ES31B) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)

Two underground hexane storage tanks (ID Nos. ES29A and ES29B) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)

Floor Sweeping Fans No. 1 and No. 2 (ID No. ES32A and ES32B)

- **Oil Refinery (ID No. ES34) Operation (both Fayetteville & Non-Fayetteville) consisting of:**

**Refinery building, deodorizer, storage tanks, truck loading area and refinery sump**

The above emission sources are subject to this multiple emission source limit.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	<u>Facility-wide</u> <sup>5</sup> Less than 487.4 tons per year.	15A NCAC 2Q .0317 Avoidance of 2D .0530

**1. 15A NCAC 2Q .0317: AVOIDANCE CONDITION for  
15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g), the facility shall discharge into the atmosphere less than **487.4 tons of VOCs per consecutive 12-month period**. [15A NCAC 2D .0530]

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508 (f)]

- b. Calculations of VOC emissions per month shall be made at the end of each month. VOC emissions shall be determined by multiplying the total amount of each type of VOC-containing material consumed during the month by the VOC content of the material. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials or the VOC emissions are not monitored and recorded.
- c. Calculations of VOC emissions per month from the processing of “non-Fayetteville” crude oils at the on-site refinery shall be made at the end of each month. VOC emissions shall be determined by multiplying the total amount of outside oil processed at the on-site refinery by the average hexane content of the monthly shipments. For each shipment of outside or “non-Fayetteville” crude oil that is to be processed at the on-site oil refinery, the Permittee shall sample and record the crude oil residual hexane

<sup>5</sup> Facility-wide PSD VOC emission limit is based on PSD Avoidance Contemporaneous netting analysis utilizing Baseline Actual Emissions from April 2007 through March 2009 plus 40 tons per year significance for this significant modification (Application No. 2600016.14F).



concentration, and monthly totals of “non-Fayetteville” crude oil processed at the oil refinery should also be recorded. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of non-Fayetteville oil and concentrations of residual hexane in the oil are not monitored and recorded.

- d. Calculations and the total amount of VOC emissions shall be recorded monthly in a log (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed this limit.
- e. Calculations and the total amount of VOC emissions and the bushels of soybeans processed per month shall be recorded monthly in a log (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed this limit.

**Reporting** [15A NCAC 2Q .0508(f)]

- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities within 30 days after each calendar year quarter, due and postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly VOC emissions for the previous 17 months. The emissions shall be calculated for each of the 12-month periods over the previous 17 months.

**D. Affected Source - All facilities subject to 40 CFR Part 63 Subpart GGGG: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: SOLVENT EXTRACTION FOR VEGETABLE OIL PRODUCTION**

**Raw Soybean Storage and Handling Operations consisting of:<sup>6</sup>**

Rail unloading system (ID No. ES1) with bagfilter (ID No. 1C)

Truck unloading system (ID No. ES2) with bagfilter (ID No. 2C)

Bean cleaning operation (ID No. ES4) with bagfilter (ID No. BF106) in series with cyclone (ID No. C106)

Direct-fired pre-cleaned soybean dryer (ID No. ES82)

Soybean storage silos (ID Nos. ES51, ES52, ES53, and ES54) with four bagfilters (one each, ID Nos. BF32, BF33, BF34, and BF35)

**Raw Soybean Processing Operations consisting of:<sup>7</sup>**

Bean cracking process (ID No. ES5) with bagfilter (ID No. BF65)

Soybean flaker process A and soybean flaker process B (ID Nos. ES6) with cyclone (ID No. 6C)

Secondary dehulling (ID No. ES12) with bagfilter (ID No. BF41) in series with two simple cyclones (ID Nos. C12A and C12C)

Scale for weighing soybean throughput (ID No. ES33) with one bagfilter (ID No. 1C)

Whole bean storage bin (ID No. ES39) with bagfilter (ID No. BF65) in series with simple cyclone (ID No. CF12B)

Primary Dehulling (ID No. ES65) with bagfilter (ID No. BF65) installed on the exhausts from two simple cyclones in parallel (ID No. C65D and C65E)

Vertical seed conditioner (ID No. ES83) – combination heater and dryer controlled by one high efficiency cyclone (ID No. CY83)

Screw conveyor (ID No. ES30) transports soybean meal “flakes” to extraction process (ID No. ES31)

**Meal Drying and Cooling Operations consisting of:<sup>8</sup>**

Steam heated soybean meal dryer and cooler (ID No. ES15) controlled by four cyclones in parallel (ID No. CY15A through CY15D)

<sup>6</sup> Per 40 CFR § 63.2872 definition of a Vegetable Oil Production Process (MACT GGGG)

<sup>7</sup> Ibid 2

<sup>8</sup> Ibid 2

**Soybean Oil/Hexane Solvent Extraction and Oil Desolventizing Process consisting of:<sup>9</sup>**

**Soybean oil/hexane solvent extraction process (ID No. ES31A) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)**

**Desolventizer – Toaster (ID No. ES31B) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)**

**Two underground hexane storage tanks (ID Nos. ES29A and ES29B) controlled by a packed column mineral oil absorber – ceramic saddle (ID No. CD31)**

**Floor Sweep Fans No. 1 and No. 2 (ID No. ES32A and ES32B)**

**APPLICABILITY**

1. The Vegetable Oil Production Process consisting of the solvent extraction processes for vegetable oil production (**ID No. ES31**) shall comply with all requirements of 15A NCAC 2D .1111 “Maximum Achievable Control Technology” and 40 CFR Part 63 Subpart GGGG “National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production.” [40 CFR § 63.2832]

**DEFINITIONS AND NOMENCLATURE**

2. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR § 63.2872 shall apply.

**REGULATED POLLUTANTS**

3. Hazardous Air Pollutants (HAPs) as defined in 40 CFR § 63.2872.

**COMPLIANCE DATES FOR EXISTING SOURCES** [40 CFR § 63.2834]

4. The facility shall operate the soybean oil/ hexane solvent extraction process in accordance with this subpart and pursuant to the Compliance Plan developed in accordance with 40 CFR 63.2851 and to the SSM Plan developed in accordance with 40 CFR 63.2852 (both plans were developed prior to April 12, 2004).

**EMISSION REQUIREMENTS** [40 CFR § 63.5698]

5. (a)
  - (1) The emission requirements limit the number of gallons of HAP lost per ton of listed oilseeds processed. For each operating month, you must calculate a compliance ratio which compares your actual HAP loss to your allowable HAP loss for the previous 12 operating months as shown in Equation 1 of this section. An operating month, as defined in § 63.2872, is any calendar month in which a source processes a listed oilseed, excluding any entire calendar month in which the source operated under an initial startup period subject to § 63.2850(c)(2) or (d)(2) or a malfunction period subject to § 63.2850(e)(2). Equation 1 of this section follows:  
$$\text{Compliance Ratio} = \frac{\text{Actual HAP Loss}}{\text{Allowable HAP Loss}} \quad (\text{Equation 1})$$
  - (2) Equation 1 of this section can also be expressed as a function of total solvent loss as shown in Equation 2 of this section. Equation 2 of this section follows:  
$$\text{Compliance Ratio} = \frac{f * \text{Actual Solvent Loss}}{0.64 * \sum_{i=1}^n [(\text{Oilseed})_i * (\text{SLF})_i]} \quad (\text{Equation 2})$$

This is for the sum( ) i=1 to i=n.

Where:

f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in § 63.2854, dimensionless.

0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in § 63.2853.

Oilseed = Tons of each oilseed type “i” processed during the previous 12 operating months, as shown in § 63.2855.

SLF = The corresponding solvent loss factor (gal/ton) for oilseed “i” listed in Table 1 of this section. For conventional soybean processing (i.e., uses a conventional style desolventizer to produce crude soybean oil products and soybean animal feed products), at existing sources, this SLF is **0.20**.

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<sup>9</sup> Ibid 2

- (b) When your source has processed listed oilseed for 12 operating months, calculate the compliance ratio by the end of each calendar month following an operating month using Equation 2 of this section. When calculating your compliance ratio, consider the conditions and exclusions in paragraphs (b)(1) through (6) of this section:
  - (1) If your source processes any quantity of listed oilseeds in a calendar month and the source is not operating under an initial startup period or malfunction period subject to § 63.2850, then you must categorize the month as an operating month, as defined in § 63.2872.
  - (2) The 12-month compliance ratio may include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation.
  - (3) If your source shuts down and processes no listed oilseed for an entire calendar month, then you must categorize the month as a non-operating month, as defined in § 63.2872. Exclude any non-operating months from the compliance ratio determination.
  - (4) If your source is subject to an initial startup period as defined in § 63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the initial startup period.
  - (5) If your source is subject to a malfunction period as defined in § 63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the malfunction period.
  - (6) For sources processing cottonseed or specialty soybean, the solvent loss factor you use to determine the compliance ratio may change each operating month depending on the tons of oilseed processed during all normal operating periods in a 12 operating month period.
- (c) If the compliance ratio is less than or equal to 1.00, your source was in compliance with the HAP emission requirements for the previous operating month. . If the compliance ratio is greater than 1.00, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR 63.2832.
- (d) To determine the compliance ratio in Equation 2 of this section, you must select the appropriate oilseed solvent loss factor (SLF) from Table 1 of this section. First, determine whether your source is new or existing using Table 1 of § 63.2833. Then, under the appropriate existing or new source column, select the oilseed solvent loss factor that corresponds to each type oilseed or process operation for each operating month. (For conventional soybean processing (i.e., uses a conventional style desolventizer to produce crude soybean oil products and soybean animal feed products), at existing sources, this SLF is **0.20**)
- (e) Low-HAP solvent option. For all vegetable oil production processes subject to this subpart, you must exclusively use solvent where the volume fraction of each HAP comprises 1 percent or less by volume of the solvent (low-HAP solvent) in each delivery, and you must meet the requirements in paragraphs (e)(1) through (5) of this section. Your vegetable oil production process is not subject to the requirements in §§ 63.2850 through 63.2870 unless specifically referenced in paragraphs (e)(1) through (5) of this section.
  - (1) You shall determine the HAP content of your solvent in accordance with the specifications in § 63.2854(b)(1).
  - (2) You shall maintain documentation of the HAP content determination for each delivery of the solvent at the facility at all times.
  - (3) You must submit an initial notification for existing sources in accordance with § 63.2860(a).
  - (4) You must submit an initial notification for new and reconstructed sources in accordance with § 63.2860(b).
  - (5) You must submit an annual compliance certification in accordance with § 63.2861(a). The certification should only include the information required under § 63.2861(a)(1) and (2), and a certification indicating whether the source complied with all of the requirements in paragraph (e) of this section.
- (f) You may change compliance options for your source if you submit a notice to the DAQ Regional Supervisor at least 60 days prior to changing compliance options. If your source changes from the low-HAP solvent option to the compliance ratio determination option, you must determine the compliance ratio for the most recent 12 operating months beginning with the first month after changing compliance options.

The Permittee shall be deemed in noncompliance with 40 CFR 63.2840 if requirements above are not followed.

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**COMPLIANCE REQUIREMENTS - HOW DO I COMPLY WITH THE HAP EMISSION STANDARDS** [40 CFR § 63.2850]

6.

- (a) General requirements. The requirements in paragraphs (a)(1)(i) through (iv) of this section apply to all affected sources:
  - (1) Submit the necessary notifications in accordance with § 63.2860, which include:
    - (i) Initial notifications for existing sources.
    - (ii) Initial notifications for new and reconstructed sources.
    - (iii) Initial notifications for significant modifications to existing or new sources.
    - (iv) Notification of compliance status.
  - (2) Develop and implement a plan for demonstrating compliance in accordance with § 63.2851.
  - (3) Develop a written startup, shutdown and malfunction (SSM) plan in accordance with the provisions in § 63.2852.
  - (4) Maintain all the necessary records you have used to demonstrate compliance with this subpart in accordance with § 63.2862.
  - (5) Submit the reports in paragraphs (a)(5)(i) through (iii) of this section:
    - (i) Annual compliance certifications in accordance with § 63.2861(a).
    - (ii) Periodic SSM reports in accordance with § 63.2861(c).
    - (iii) Immediate SSM reports in accordance with § 63.2861(d).
  - (6) Submit all notifications and reports and maintain all records required by the General Provisions for performance testing if you add a control device that destroys solvent.
- (b) Existing sources under normal operation. You must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for existing sources under normal operation in Table 2 of this section.
- (c) New sources. Your new source, including a source that is categorized as new due to reconstruction, must meet the requirements associated with one of two compliance options. Within 15 days of the startup date, you must choose to comply with one of the options listed in paragraph (c)(1) or (2) of this section:
  - (1) Normal operation. Upon startup of your new source, you must meet all of the requirements listed in § 63.2850(a) and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for new sources under normal operation in Table 2 of this section.
  - (2) Initial startup period. For up to 6 calendar months after the startup date of your new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for new sources operating under an initial startup period in Table 2 of this section. After a maximum of 6 calendar months, your new source must then meet all of the requirements listed in Table 1 of this section for sources under normal operation.
- (d) Existing or new sources that have been significantly modified. Your existing or new source that has been significantly modified must meet the requirements associated with one of two compliance options. Within 15 days of the modified source startup date, you must choose to comply with one of the options listed in paragraph (d)(1) or (2) of this section:
  - (1) Normal operation. Upon startup of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for an existing or new source that has been significantly modified in Table 2 of this section.
  - (2) Initial startup period. For up to 3 calendar months after the startup date of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for a significantly modified existing or new source operating under an initial startup period in Table 2 of this section. After a maximum of 3 calendar months, your new or existing source must meet all of the requirements listed in Table 1 of this section for sources operating under normal operation.
- (e) Existing or new sources experiencing a malfunction. A malfunction is defined in § 63.2. In general, it means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment or process equipment to function in a usual manner. If your existing or new source experiences an unscheduled shutdown as a result of a malfunction, continues to operate during a malfunction (including the period reasonably necessary to correct the malfunction), or starts up after a shutdown resulting from a malfunction, then you must meet the requirements associated with one of two compliance options. Routine or scheduled process startups and shutdowns resulting from, but not limited to, market demands,

maintenance activities, and switching types of oilseed processed, are not startups or shutdowns resulting from a malfunction and, therefore, do not qualify for this provision. Within 15 days of the beginning date of the malfunction, you must choose to comply with one of the options listed in paragraphs (e)(1) through (2) of this section:

- (1) Normal operation. Your source must meet all of the requirements listed in paragraph (a) of this section and one of the options listed in paragraphs (e)(1)(I) through (iii) of this section:
  - (i) Existing source normal operation requirements in paragraph (b) of this section.
  - (ii) New source normal operation requirements in paragraph (c)(1) of this section.
  - (iii) Normal operation requirements for sources that have been significantly modified in paragraph (d)(1) of this section.
- (2) Malfunction period. Throughout the malfunction period, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating during a malfunction period. At the end of the malfunction period, your source must then meet all of the requirements listed in Table 1 of this section for sources under normal operation. Table 1 of this section follows:

The Permittee shall be deemed in noncompliance with 40 CFR 63.2850 if requirements above are not followed.

**TABLE 1 OF § 63.2850...REQUIREMENTS FOR COMPLIANCE WITH HAP EMISSION STANDARDS**

<b>Are you required to?</b>	<b>For periods of normal operation?</b>	<b>For initial startup periods subject to §63.2850(c)(2) or (d)(2)?</b>	<b>For malfunction periods subject to §63.2850(e)(2)?</b>
(a) Operate and maintain your source in accordance with your SSM plan as described in § 63.2852?	No, your source is not subject to the SSM plan, but rather to the limits of this emission standard.	Yes, throughout the entire initial startup period.	Yes, throughout the entire malfunction period.
(b) Determine and record the extraction solvent loss from your source?	Yes, as described in §63.2853.....	Yes, as described in §63.2862(e).	Yes, as described in §63.2862(e).
(c) Record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction solvent in shipment received?	Yes.	Yes.	Yes.
(d) Determine and record the tons of each oilseed type processed by your source?	Yes, as described in §63.2855.....	No.	No.
(e) Determine the weighted-average volume fraction of HAP in extraction solvent received as described in §63.2854 by the end of the following calendar month?	Yes.	No. Except for solvent received by a new or reconstructed source commencing operation under an initial startup period, the HAP volume fraction in any solvent received during an initial startup period is included in the weighted average HAP determination for the next operating month.	No, the HAP volume fraction in any solvent received during a malfunction period is included in the weighted average HAP determination for the next operating month.

<b>Are you required to?</b>	<b>For periods of normal operation?</b>	<b>For initial startup periods subject to §63.2850(c)(2) or (d)(2)?</b>	<b>For malfunction periods subject to §63.2850(e)(2)?</b>
(f) Determine and record the actual solvent loss, weighted average volume fraction HAP, oilseed processed and compliance ratio for each 12 month period as described in §63.2840 by the end of the following calendar month?	Yes.	No, these requirements are not applicable, because your source is not required to determine the compliance ratio with data recorded for an initial startup period.	No, these requirements are not applicable, because your source is not required to determine the compliance ratio for data recorded for a malfunction period.
(g) Submit a Notification of Compliance Status or Annual Compliance Status Certification as appropriate?	Yes, as described in §63.2860(d) and §63.2861(a).	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during an initial startup period.	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during a malfunction period.
(h) Submit a Deviation Notification Report by the end of the calendar month following the month in which you determined that the compliance ratio exceeds 1.00 as described in §63.2861(b)?	Yes.	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for an initial startup period.	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for a malfunction period.
(i) Submit a periodic SSM Report as described in §63.2861(c)?	No, a SSM activity is not categorized as normal operation.	Yes.	Yes.
(j) Submit an immediate SSM Report as described in §63.2861(d)?	No, a SSM activity is not categorized as normal operation.	Yes, only if your source does not follow the SSM plan.	Yes, only if your source does not follow the SSM plan.

**TABLE 2 OF § 63.2850...SCHEDULES FOR DEMONSTRATING COMPLIANCE UNDER VARIOUS SOURCE OPERATING MODES**

<b>If your source is...</b>	<b>And operating under...</b>	<b>Then your recordkeeping schedule...</b>	<b>You must determine your compliance ratio by the end of the calendar month following...</b>	<b>Base your first compliance ratio on information recorded...</b>
(a) Existing	Normal operation	Begins on the compliance date.	The first 12 months after the compliance date.	During the first 12 operating months after the compliance date.
(b) New	(1) Normal operation.	Begins on the startup date of your new source.	The first 12 operating months after the startup date of your new source.	During the first 12 operating months after the startup date of your new source.
	(2) An initial startup period.	Begins on the startup date of your new source.	The first 12 operating months after termination of the initial startup period, which can last for up to 6 months.	During the first 12 operating months after the initial startup period, which can last for up to 6 months.
(c) Existing or new that has been significantly modified.	(1) Normal operation.	Resumes on the startup date of the modified source.	The first operating month after the startup date of the modified source.	During the previous 11 operating months prior to the significant modification and the first operating month following the initial startup date of the source.
	(2) An initial startup period.	Resumes on the startup date of the modified source.	The first operating month after the termination of the initial startup period, which can last up to 3 months.	During the 11 operating months before the significant modification and the first operating month after the initial startup period.

**MONITORING, RECORDKEEPING AND REPORTING** [40 CFR 63.2851, 63.2852, 63.2862 and 63.2863]

7. In accordance with 40 CFR 63.2851, the facility shall comply with the following requirements:
- The facility shall develop and implement (prior to April 12, 2004) a written plan for demonstrating compliance (Compliance Plan) that provides the detailed procedures (Monitoring, Recordkeeping and Reporting Requirements) that the facility shall follow to monitor, record and report data necessary for demonstrating compliance with this subpart.
  - The facility shall also incorporate the Compliance Plan by reference in the facility's Title V permit and keep the Compliance Plan on-site and readily available as long as the affected sources are operational.
  - The plan for demonstrating compliance (Compliance Plan) shall include the following items:
    - The name and address of the owner or operator.
    - The physical address of the vegetable oil production process.

- (3) A detailed description of all methods of measurement your source will use to determine your solvent losses, HAP content of solvent, and the tons of each type of oilseed processed.
- (4) When each measurement will be made.
- (5) Examples of each calculation you will use to determine your compliance status. Include examples of how you will convert data measured with one parameter to other terms for use in compliance determination.
- (6) Example logs of how data will be recorded.
- (7) A plan to ensure that the data continue to meet compliance demonstration needs.
- (d) If the facility makes any changes to the Compliance Plan, then the facility shall keep all previous versions of the plan and make them readily available for inspection for at least 5 years after each revision. The DAQ Regional Supervisor may require the facility to revise the plan for demonstrating compliance. The DAQ Regional Supervisor may require reasonable revisions if the procedures lack detail, are inconsistent or do not accurately determine solvent loss, HAP content of the solvent, or the tons of oilseed processed.

The Permittee shall be deemed in noncompliance with 40 CFR 63.2851 if requirements above are not followed.

8. In accordance with 40 CFR 63.2852, the facility shall comply with the following requirements:

- (a) The facility shall develop (prior to April 12, 2004) a written Startup, Shutdown and Malfunction (SSM) Plan in accordance with 40 CFR § 63.6(e)(3) and implement the SSM Plan when applicable.
- (b) The SSM Plan shall provide the detailed procedures for operating and maintaining the affected sources to minimize emissions during a qualifying SSM event for which the facility chooses the § 63.2850(e)(2) malfunction period, or the § 63.2850(c)(2) or (d)(2) initial startup period.
- (c) The facility shall also keep the SSM Plan on-site and readily available as long as the affected sources are operational.
- (d) The SSM plan shall specify a program of corrective action for malfunctioning process and air pollution control equipment and reflect the best practices now in use by the industry to minimize emissions.

The Permittee shall be deemed in noncompliance with 40 CFR 63.2852 if requirements above are not followed.

9. In accordance with 40 CFR 63.2862, the facility shall comply with the following requirements:

- (a) Both the compliance plan (as described in § 63.2851) and the SSM plan (as described in § 63.2852) shall be kept on-site and readily available as long as the source is operational.
- (b) If your source processes any listed oilseed, record the items in paragraphs (b)(1) through (5) of this section:
  - (1) For the solvent inventory, record the information in paragraphs (b)(1)(I) through (vii) of this section in accordance with your plan for demonstrating compliance:
    - (i) Dates that define each unit's operating status period during a calendar month.
    - (ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval.
    - (iii) Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period.
    - (iv) The gallons of all extraction solvent received, purchased, and recovered during each calendar month.
    - (v) All extraction solvent inventory adjustments, additions or subtractions. You must document the reason for the adjustment and justify the quantity of the adjustment.
    - (vi) The total solvent loss for each calendar month, regardless of the source operating status.
    - (vii) The actual solvent loss in gallons for each operating month calculated as follows:
 
$$\text{Monthly Actual Solvent (gal)} = \sum (\text{SOLV}_B - \text{SOLV}_E + \text{SOLV}_R \pm \text{SOLV}_A)_i$$

This is for the sum  $(\sum)_{i=1 \text{ to } i=n}$ .

Where:

$\text{SOLV}_B$  = Gallons of solvent in the inventory at the beginning of normal operating period "i" as determined in paragraph (a)(3) of this section.

$\text{SOLV}_E$  = Gallons of solvent in the inventory at the end of normal operating period "i" as determined in paragraph (a)(3) of this section.

$\text{SOLV}_R$  = Gallons of solvent received between the beginning and ending inventory dates of normal operating period "i" as determined in paragraph (a)(4) of this section.

$\text{SOLV}_A$  = Gallons of solvent added or removed from the extraction solvent inventory during normal operating period "i" as determined in paragraph (a)(5) of this section.

$n$  = Number of normal operating periods in a calendar month.



- (2) For the weighted average volume fraction of HAP in the extraction solvent, you must record the items in paragraphs (b)(2)(i) through (iii) of this section:
- (i) The gallons of extraction solvent received in each delivery.
  - (ii) The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent.
  - (iii) The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in accordance with § 63.2854(b)(2) as follows:

12-Month Weighted

$$\text{Average of HAP Content of Extraction Solvent} = \frac{\sum (\text{Received}_i * \text{Content}_i)}{\text{Total Received}}$$

(volume fraction)

This is for the sum ( $\sum$ )  $i=1$  to  $i=n$ .

Where:

$\text{Received}_i$  = Gallons of extraction solvent received in delivery “i.”

$\text{Content}_i$  = The volume fraction of HAP in extraction solvent delivery “i.”

Total Received = Total gallons of extraction solvent received since the end of the previous operating month.

$n$  = Number of extraction solvent deliveries since the end of the previous operating month.

- (3) For each type of listed oilseed processed, record the items in paragraphs (b)(3)(i) through (vi) of this section, in accordance with your plan for demonstrating compliance:
- (i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory.
  - (ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, you must record which type of listed oilseed is being processed in addition to the source operating status.
  - (iii) The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period.
  - (iv) The tons of each type of listed oilseed received at an affected source each normal operating period.
  - (v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. You must document the reason for the adjustment and justify the quantity of the adjustment.
  - (vi) The tons of each type of listed oilseed processed within a calendar month calculated as follows:  
 Monthly Quantity of Each Oilseed Processed (tons) =  $\sum (\text{SEED}_B - \text{SEED}_E + \text{SEED}_R \pm \text{SEED}_A)_i$   
 This is for the sum ( $\sum$ )  $i=1$  to  $i=n$ .  
 Where:  
 $\text{SEED}_B$  = Tons of oilseed in the inventory at the beginning of normal operating period “i” as determined in accordance with paragraph (a)(3) of this section.  
 $\text{SEED}_E$  = Tons of oilseed in the inventory at the end of normal operating period “i” as determined in accordance with paragraph (a)(3) of this section.  
 $\text{SEED}_R$  = Tons of oilseed received during normal operating period “i” as determined in accordance with paragraph (a)(4) of this section.  
 $\text{SEED}_A$  = Tons of oilseed added or removed from the oilseed inventory during normal operating period “i” as determined in accordance with paragraph (a)(5) of this section.  
 $n$  = Number of normal operating periods in the calendar month during which this type oilseed was processed.
- (c) After your source has processed listed oilseed for 12 operating months, and you are not operating during an initial startup period as described in § 63.2850(c)(2) or (d)(2), or a malfunction period as described in § 63.2850(e)(2), record the items in paragraphs (d)(1) through (5) of this section by the end of the calendar month following each operating month:
- (1) The 12 operating months rolling sum of the actual solvent loss in gallons as described in § 63.2853(c).

- (2) The weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months as described in § 63.2854(b)(3) and calculated as follows:

12-Month Weighted Average

$$\text{of HAP Content in Solvent} = \frac{\sum (\text{Received}_i * \text{Content}_i)}{\text{Total Received}} \quad (\text{Eqn. 2})$$

This is for the sum ( $\sum$ )  $i=1$  to  $i=12$ .

Where:

Received<sub>i</sub> = Gallons of extraction solvent received in operating month “I” as determined in accordance with § 63.2853(a)(4).

Content<sub>i</sub> = Average volume fraction of HAP in extraction solvent received in operating month “I” as determined in accordance with paragraph (b)(1) of this section.

Total Received = Total gallons of extraction solvent received during the previous 12 operating months.

- (3) The 12 operating months rolling sum of each type of listed oilseed processed at the affected source in tons as described in § 63.2855(c).
- (4) A determination of the compliance ratio. Using the values from § 63.2853, 63.2854, 63.2855, and Table 1 of § 63.2840, calculate the compliance ratio as follows:

$$\text{Compliance Ratio} = \frac{f * \text{Actual Solvent Loss}}{0.64 * [(\text{Oilseed})_i * (\text{SLF})_i]} \quad (\text{Equation 2})$$

This is for the sum ( $\sum$ )  $i=1$  to  $i=n$ .

Where:

f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in § 63.2854, dimensionless.

0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in § 63.2853.

Oilseed = Tons of each oilseed type “i” processed during the previous 12 operating months, as shown in § 63.2855.

SLF = The corresponding solvent loss factor (gal/ton) for oilseed “i” listed in Table 1 of this section. For conventional soybean processing (i.e., uses a conventional style desolventizer to produce crude soybean oil products and soybean animal feed products), at existing sources, this SLF is **0.20**. If the compliance ratio is greater than 1.00, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR 63.2832.

- (5) A statement of whether the source is in compliance with all of the requirements of this subpart. This includes a determination of whether you have met all of the applicable requirements in § 63.2850.
- (d) For each SSM event subject to an initial startup period as described in § 63.2850(c)(2) or (d)(2), or a malfunction period as described in § 63.2850(e)(2), record the items in paragraphs (e)(1) through (3) of this section by the end of the calendar month following each month in which the initial startup period or malfunction period occurred:
- (1) A description and date of the SSM event, its duration, and reason it qualifies as an initial startup or malfunction.
  - (2) An estimate of the solvent loss in gallons for the duration of the initial startup or malfunction period with supporting documentation.
  - (3) A checklist or other mechanism to indicate whether the SSM plan was followed during the initial startup or malfunction period.

The Permittee shall be deemed in noncompliance with 40 CFR 63.2862 if requirements above are not followed.

10. In accordance with 40 CFR 63.2863, the facility shall comply with the following requirements:

- (a) Your records must be in a form suitable and readily available for review in accordance with § 63.10(b)(1).
- (b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

- (c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, in accordance with §63.10(b)(1). You can keep the records off-site for the remaining 3 years.

The Permittee shall be deemed in noncompliance with 40 CFR 63.2863 if the records above are not kept

**NOTIFICATIONS AND REPORTING** [40 CFR § 63.2860 and 63.2861]

- 11. In accordance with 40 CFR 63.2860, the facility shall submit the following one-time notifications to the DAQ Regional Supervisor:

- (a) Initial notifications for new and reconstructed sources. New or reconstructed sources must submit a series of notifications before, during, and after source construction per the schedule listed in § 63.9. The information requirements for the notifications are the same as those listed in the General Provisions with the exceptions listed in paragraphs (a)(1) and (2) of this section:
  - (1) The application for approval of construction does not require the specific HAP emission data required in § 63.5(d)(1)(ii)(H) and (iii), (d)(2) and (d)(3)(ii). The application for approval of construction would include, instead, a brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.
  - (2) The notification of actual startup date must also include whether you have elected to operate under an initial startup period subject to §63.2850(c)(2) and provide an estimate and justification for the anticipated duration of the initial startup period.
- (b) Significant modification notifications. Any existing or new source that plans to undergo a significant modification as defined in § 63.2872 must submit two reports as described in the following paragraphs:
  - (1) Initial notification. You must submit an initial notification to the DAQ Regional Supervisor 30 days prior to initial startup of the significantly modified source. The initial notification must demonstrate that the proposed changes qualify as a significant modification. The initial notification must include the items the following items:
    - (i) The expected startup date of the modified source.
    - (ii) A description of the significant modification including a list of the equipment that will be replaced or modified. If the significant modification involves changes other than adding or replacing extractors, desolventizer toasters (conventional and specialty), and meal dryer-coolers, then you must also include the fixed capital cost of the new components, expressed as a percentage of the fixed capital cost to build a comparable new vegetable oil production process; supporting documentation for the cost estimate; and documentation that the proposed changes will significantly affect solvent losses.
  - (2) Notification of actual startup. You must submit a notification of actual startup date within 15 days after initial startup of the modified source. The notification must include the following items:
    - (i) The initial startup date of the modified source.
    - (ii) An indication whether you have elected to operate under an initial startup period subject to § 63.2850(d)(2).
    - (iii) The anticipated duration of any initial startup period.
    - (iv) A justification for the anticipated duration of any initial startup period.
- (c) Notification of compliance status. As an existing, new, or reconstructed source, you must submit a notification of compliance status report to the responsible agency no later than 60 days after determining your initial 12 operating months compliance ratio. If you are an existing source, you generally must submit this notification no later than 50 calendar months after the effective date of these NESHAP (36 calendar months for compliance, 12 operating months to record data, and 2 calendar months to complete the report). If you are a new or reconstructed source, the notification of compliance status is generally due no later than 20 calendar months after initial startup (6 calendar months for the initial startup period, 12 operating months to record data, and 2 calendar months to complete the report). The notification of compliance status must contain the items in the following paragraphs:
  - (1) The name and address of the owner or operator.
  - (2) The physical address of the vegetable oil production process.
  - (3) Each listed oilseed type processed during the previous 12 operating months.
  - (4) Each HAP identified under §63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 operating months period used for the initial compliance determination.
  - (5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

- (6) A compliance certification indicating whether the source complied with all of the requirements of this subpart throughout the 12 operating months used for the initial source compliance determination. This certification must include a certification of the items in following paragraphs:
  - (i) The plan for demonstrating compliance (as described in § 63.2851) and SSM plan (as described in § 63.2852) are complete and available on-site for inspection.
  - (ii) You are following the procedures described in the plan for demonstrating compliance.
  - (iii) The compliance ratio is less than or equal to 1.00.

The Permittee shall be deemed in noncompliance with 40 CFR 63.2860 if notifications above are not submitted.

12. After the initial notifications and in accordance with 40 CFR 63.2861, the facility shall submit the following reports to the DAQ Regional Supervisor at the appropriate time intervals.
  - (a) Annual compliance certifications. The first annual compliance certification is due 12 calendar months after you submit the notification of compliance status. Each subsequent annual compliance certification is due 12 calendar months after the previous annual compliance certification. The annual compliance certification provides the compliance status for each operating month during the 12 calendar months period ending 60 days prior to the date on which the report is due. Include the information in paragraphs (a)(1) through (6) of this section in the annual certification:
    - (1) The name and address of the owner or operator.
    - (2) The physical address of the vegetable oil production process.
    - (3) Each listed oilseed type processed during the 12 calendar months period covered by the report.
    - (4) Each HAP identified under § 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report.
    - (5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.
    - (6) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, you must include a certification of the items in paragraphs (a)(6)(i) through (ii) of this section:
      - (i) You are following the procedures described in the plan for demonstrating compliance.
      - (ii) The compliance ratio is less than or equal to 1.00.
  - (b) Deviation notification report. Submit a deviation report for each compliance determination you make in which the compliance ratio exceeds 1.00 as determined under § 63.2840(c). Submit the deviation report by the end of the month following the calendar month in which you determined the deviation. The deviation notification report must include the items in paragraphs (b)(1) through (4) of this section:
    - (1) The name and address of the owner or operator.
    - (2) The physical address of the vegetable oil production process.
    - (3) Each listed oilseed type processed during the 12 operating months period for which you determined the deviation.
    - (4) The compliance ratio comprising the deviation. You may reduce the frequency of submittal of the deviation notification report if the agency responsible for these NESHAP does not object as provided in § 63.10(e)(3)(iii).
  - (c) Periodic startup, shutdown, and malfunction report. If you choose to operate your source under an initial startup period subject to § 63.2850(c)(2) or (d)(2) or a malfunction period subject to § 63.2850(e)(2), you must submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period or malfunction period occurred. The periodic SSM report must include the items in paragraphs (c)(1) through (3) of this section:
    - (1) The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan.
    - (2) A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as an initial startup period or malfunction period.
    - (3) An estimate of the solvent loss during the initial startup or malfunction period with supporting documentation.
  - (d) Immediate SSM reports. If you handle a SSM during an initial startup period subject to § 63.2850(c)(2) or (d)(2) or a malfunction period subject to § 63.2850(e)(2) differently from procedures in the SSM plan and the relevant emission requirements in § 63.2840 are exceeded, then you must submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the

responsible agency within 2 working days after starting actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. The letter must include the items in paragraphs (d)(1) through (3) of this section:

- (1) The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan.
- (2) A description and date of the SSM event, its duration, and reason it qualifies as a SSM.
- (3) An estimate of the solvent loss for the duration of the SSM event with supporting documentation.

The Permittee shall be deemed in noncompliance with 40 CFR 63.2861 if the reports above are not submitted.

## 2.3 SCHEDULE OF COMPLIANCE:

### Consent Decree 05-2037-JRM-FLN

#### A. One soybean oil/ hexane solvent extraction process (ID No. ES31A and ES31B) with one packed column mineral oil absorber (ID No. CD31)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	Adjusted Solvent Loss Ratio $\leq 0.19$	15A NCAC 2D .0530

### 1. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

#### Emission Standard [15A NCAC 2D .0530(g)]

- a. i. The hexane solvent, soybean oil extraction process (ID No. ES31A and ES31B) shall operate at an interim adjusted solvent loss ratio not to exceed 0.19 gallons of solvent per ton of oilseed processed, on a rolling average of the 12 most recent operating months.
- ii. The Permittee shall be allowed to change the interim adjusted solvent loss ratio for this facility via permit application without triggering a review under 15A NCAC 2D .0530 until February 27, 2009, at which time the adjusted solvent loss ratio shall become final.
- iii. The first determination of compliance with this limit shall be based on the first 12-months of operating data collected after February of 2009.

#### b. Definitions

**Adjusted solvent loss ratio** means the ratio of gallons of extraction solvent lost from a source, after adjusting for malfunctions as allowed under Section 2. 3 A.1.c.iii below, to the tons of oilseeds processed on an as received basis.

**As received** means the oilseed chemical and physical characteristics as initially received by the Permittee and prior to any oilseed handling or processing.

**Extraction solvent** means an organic chemical medium used to remove oil from an oilseed.

**Malfunction period** means a period of time between the beginning and end of a process malfunction and the time reasonably necessary for a source to correct the malfunction for which you choose to operate the source under a malfunction period.

**Operating month** means any calendar month in which a source processes any quantity of oilseed, excluding any entire calendar month in which the source operated under a malfunction period.

**Solvent loss ratio** means the ratio of gallons of solvent lost from a source to the tons of oilseeds processed in that source on an as received basis.

#### Monitoring [15A NCAC 2Q .0508(f)]

- c. Beginning in March of 2009, by the end of each calendar month following an operating month the Permittee shall:

- i. determine the tons of oilseeds processed by the facility during that operating month;
- ii. determine the gallons of extraction solvent lost from the facility during that operating month;
- iii. determine the gallons of extraction solvent lost from the facility during that operating month that occurred under any malfunction periods. The Permittee may adjust solvent loss for malfunctions only if:
  - (1) the malfunction results in a shutdown of the solvent extraction system (ID No. ES-31); and
  - (2) cumulative solvent losses during malfunction periods do not exceed 4,000 gallons in a 12-operating month rolling period; and
- iv. calculate the resulting adjusted solvent loss ratio for that operating month;

If the monitoring described in Section 2. 3. A.1.c.i through iv above are not performed, then the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0530.

- d. Beginning in March 2010, by the end of each calendar month following an operating month the Permittee shall calculate the rolling average of the adjusted solvent loss ratio for the 12 most recent operating months. If this monitoring is not performed, or if the calculated rolling average of the adjusted solvent loss ratio for the 12 most recent operating months is above the limit in Section 2. 3. A.1.a.i above, then the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0530.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- e. Beginning in March of 2009, the results of the monitoring shall be maintained in a log (in written or electronic format) on-site in the form of Table 1 "Extraction Solvent Loss Recordkeeping Table" attached to this permit and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- f. Beginning in July of 2010 the Permittee shall submit a semi-annual summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The semi-annual summary report shall contain the following:
  - i. The adjusted solvent loss ratio for each of the previous 17 calendar months;
  - ii. The rolling average of the adjusted solvent loss ratio for the 17 most recent operating months. This rolling average shall be calculated and reported for each 12 calendar month period ending in the semi-annual reporting period; and
  - iii. A compliance statement described in the format of Paragraphs 38 of the Consent Decree 05-2037-JRM-FLN.

## **2.4. Permit Shield for Nonapplicable Requirements**

The Permittee is shielded from the following non applicable requirements as of (March 7, 2008), based on information furnished with all previous applications. This shield does not apply to future modifications or changes in the method of operation: [15A NCAC 2Q .0512(a)(1)(B)]

- A. The soybean oil/ hexane solvent extraction process (ID No. ES31A and ES31B) controlled by a packed column mineral oil absorber (ID No. CD31) is not subject to CAM requirements as per 15A NCAC 2D .0614(b)(1)(E).

## 2.5. Compliance Assurance Monitoring

- A. The Permittee must ensure that PM<sub>10</sub> emitted from the sources (ID Nos. ES5 and ES11) are controlled by bagfilters (ID BF65 and BF9) respectively; the Permittee must ensure that PM<sub>10</sub> emitted from the sources (ID Nos. ES4, ES12 and ES65) are controlled by bagfilters (ID Nos. BF106, BF41 and BF65) and PM<sub>10</sub> emitted from the sources (ID Nos. ES4, ES6, ES12, ES15 and ES65) are also controlled by cyclones (ID Nos. C106, 6C, C12A and C12C, CY15A through CY15D, C65D and C65E)

The following table provides a summary of parameter monitored for the control devices described above:

PM-10	Continuous Assurance Monitoring	15A NCAC 2D .0614
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### 1. 15A NCAC 2D .0614: Compliance Assurance Monitoring

The Permittee shall monitor the visible emissions from the outlets of the sources mentioned above.

#### Testing

- a. None.

**Monitoring Approach.** The key elements of the monitoring approach are presented in the following table.

- b. Visible emissions from the outlets of the sources.

Indicator [64.6(c)(1)(i)]	Visible emissions from the outlets of the sources mentioned above recorded once per day during operation.
Measurement Approach [64.6(c)(1)(ii)]	Visible emissions from the outlets of the sources mentioned above will be monitored daily using reference method 22-like procedures.
Indicator Range [64.6(c)(2)]	There should be no visible emissions from the sources. An excursion is defined as the presence of visible emissions. Excursions trigger an inspection and corrective action
Quality Improvement Plan (QIP) Threshold (exceedance) [64.8]	Six excursions as defined above, per source, within any 6-month period.
QA/QC Practices and Criteria [64.3(b)(3)]	The observer will be familiar with Method 22 and follow Method 22-like procedures
Monitoring Frequency [64.3(b)(4)] & Data Collection Procedure	A six-minute Method 22-like observation is performed daily, during operation. The daily results shall be recorded once per day and kept in a logbook
Averaging Period	NA

#### **Recordkeeping and Reporting**

- c. The Permittee must maintain the following records on a monthly basis in accordance with the requirements of 40 CFR 64.9:
- records specified in 40 CFR 64 of all measurements of operating parameters including:
    - records of excursion reports, corrective actions, and visible emissions logs.
- d. Semi-annual compliance reports must cover the semiannual reporting period from January 1 through June 30 and the semiannual reporting period from July 1 through December 31. Each compliance report must be postmarked or delivered no later than July 30 or January 30, whichever date is the first date following the end of the semiannual reporting period. The compliance report must contain the following information:
- Company name and address,
  - a statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report,

- iii. the date of report and beginning and ending dates of the reporting period,
- iv. a statement that there were no excursion outside of the allowable operating parameter limits during the reporting period (as applicable). Or for each exceedance of an allowable operating parameter that occurs, the compliance report must contain:
  - (a) the total operating time of the source during the reporting period,
  - (b) information on the number, duration, and cause of exceedances (including unknown cause), if applicable, and the corrective action taken.

## SECTION 3 - GENERAL CONDITIONS (Version 4.0 12/17/15)

This section describes terms and conditions applicable to this Title V facility.

**A. General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

**B. Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

**C. Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

**D. Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance  
North Carolina Division of Air Quality  
1641 Mail Service Center  
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).



**E. Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

**F. Circumvention - STATE ENFORCEABLE ONLY**

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

**G. Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]  
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]  
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]  
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]  
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]  
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

**H. Changes Not Requiring Permit Modifications**

1. Reporting Requirements  
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section I must be reported to the Regional Supervisor, DAQ:
  - a. changes in the information submitted in the application;
  - b. changes that modify equipment or processes; or
  - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
  - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
  - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
    - i. the changes are not a modification under Title I of the Federal Clean Air Act;
    - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
    - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
    - iv. the Permittee shall attach the notice to the relevant permit.
  - c. The written notification shall include:
    - i. a description of the change;
    - ii. the date on which the change will occur;
    - iii. any change in emissions; and
    - iv. any permit term or condition that is no longer applicable as a result of the change.
  - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.

3. Off Permit Changes [15A NCAC 02Q .0523(b)]  
The Permittee may make changes in the operation or emissions without revising the permit if:
  - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
  - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]  
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

**I.A. Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

“Deviations” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
  - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
    - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
      - name and location of the facility;
      - nature and cause of the malfunction or breakdown;
      - time when the malfunction or breakdown is first observed;
      - expected duration; and
      - estimated rate of emissions;
    - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
    - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
  - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

**I.B. Other Requirements under 15A NCAC 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

**J. Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
  - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
  - b. the permitted facility was at the time being properly operated;
  - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
  - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

**K. Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

**L. Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**M. Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

**N. Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

**O. Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable

and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
  - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
  - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
  - c. the applicable requirements under Title IV; or
  - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

**V. Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
  - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
  - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
  - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

**W. Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

**X. Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

**Y. Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

**Z. Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

**AA. Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

**BB. Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

**CC. Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.

3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY**

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
  - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:

- i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
- ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
- iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
- b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

**KK. Reopening for Cause [15A NCAC 02Q .0517]**

- 1. A permit shall be reopened and revised under the following circumstances:
  - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
  - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
  - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- 2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
- 3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
- 4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
- 5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

**LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]**

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

**MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540] - STATE ENFORCEABLE ONLY**

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

**NN. Specific Permit Modifications [15A NCAC 02Q.0501 and .0523]**

- 1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
- 2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit

Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.

3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
  - a. a description of the change at the facility;
  - b. the date on which the change will occur;
  - c. any change in emissions; and
  - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.



## ATTACHMENT

### List of Acronyms

<b>AOS</b>	Alternate Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>Btu</b>	British thermal unit
<b>CAA</b>	Clean Air Act
<b>CAIR</b>	Clean Air Interstate Rule
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>DAQ</b>	Division of Air Quality
<b>DEQ</b>	Department of Environmental Quality
<b>EMC</b>	Environmental Management Commission
<b>EPA</b>	Environmental Protection Agency
<b>FR</b>	Federal Register
<b>GACT</b>	Generally Available Control Technology
<b>HAP</b>	Hazardous Air Pollutant
<b>MACT</b>	Maximum Achievable Control Technology
<b>NAA</b>	Non-Attainment Area
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAP</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>OAH</b>	Office of Administrative Hearings
<b>PM</b>	Particulate Matter
<b>PM<sub>10</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
<b>POS</b>	Primary Operating Scenario
<b>PSD</b>	Prevention of Significant Deterioration
<b>RACT</b>	Reasonably Available Control Technology
<b>SIC</b>	Standard Industrial Classification
<b>SIP</b>	State Implementation Plan
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound